



SEQUENCE LISTING

1

<110> Fishman, Mark C.

<120> Methods for Diagnosing and Treating Heart Disease

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<211> 81940

<212> DNA

<213> Homo sapiens

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Pro Pro Arg Ile Pro Pro Lys Pro Lys Ser Arg Ser Pro Thr Pro Pro		
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Gly Val Thr Phe His	Cys Lys Met Ser Gly	Tyr Pro Leu Pro Lys	
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Tyr Gln Met Asp Phe	Leu Gln Asp Gly Arg	Ala Ser Leu Arg Ile	
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Pro Val Val Leu Pro	Glu Asp Glu Gly Ile	Tyr Thr Ala Phe Ala	
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Phe Gly Tyr Cys Ser	Leu Asp Tyr Gly Val	Ala Tyr Ser Arg Asp	
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Ser Gly Ile Ile Thr	Cys Arg Ala Thr Asn	Lys Tyr Gly Thr Asp	
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tat gag gaa ctc ctc Tyr Glu Glu Leu Leu 1985	agg aag aca aaa gat Arg Lys Thr Lys Asp 1990	gaa ctt ctc cac tgg Glu Leu Leu His Trp 1995	6117
acc aaa gag tta act Thr Lys Glu Leu Thr 2000	gaa gag gaa aag aaa Glu Glu Glu Lys Lys 2005	gct ctt gcc gaa gaa Ala Leu Ala Glu Glu 2010	6162

ggc aaa atc acg att	cca act ttt aaa cct	gac aag att gaa cta	6207
Gly Lys Ile Thr Ile	Pro Thr Phe Lys Pro	Asp Lys Ile Glu Leu	
2015	2020	2025	
agt cct agt atg gag	gct cca aaa atc ttc	gaa aga atc cag agc	6252
Ser Pro Ser Met Glu	Ala Pro Lys Ile Phe	Glu Arg Ile Gln Ser	
2030	2035	2040	
caa aca gtg ggc caa	gga tct gat gca cac	ttc cgg gtc aga gtc	6297
Gln Thr Val Gly Gln	Gly Ser Asp Ala His	Phe Arg Val Arg Val	
2045	2050	2055	
gtg ggg aaa cca gac	ccc gaa tgt gaa tgg	tac aaa aat ggt gtc	6342
Val Gly Lys Pro Asp	Pro Glu Cys Glu Trp	Tyr Lys Asn Gly Val	
2060	2065	2070	
aaa att gaa cgg tct	gac cgg atc tac tgg	tac tgg ccc gaa gac	6387
Lys Ile Glu Arg Ser	Asp Arg Ile Tyr Trp	Tyr Trp Pro Glu Asp	
2075	2080	2085	
aat gtt tgt gaa ttg	gtc ata aga gat gtg	act gct gag gac tct	6432
Asn Val Cys Glu Leu	Val Ile Arg Asp Val	Thr Ala Glu Asp Ser	
2090	2095	2100	
gcc agc atc atg gta	aaa gcc atc aac ata	gct gga gaa acc tcc	6477
Ala Ser Ile Met Val	Lys Ala Ile Asn Ile	Ala Gly Glu Thr Ser	
2105	2110	2115	
agt cac gca ttc tta	ctt gtc caa gcc aag	caa ttg atc act ttc	6522
Ser His Ala Phe Leu	Leu Val Gln Ala Lys	Gln Leu Ile Thr Phe	
2120	2125	2130	
aca cag gaa tta caa	gat gtt gtt gct aag	gaa aaa gac act atg	6567
Thr Gln Glu Leu Gln	Asp Val Val Ala Lys	Glu Lys Asp Thr Met	
2135	2140	2145	
gca acc ttt gaa tgt	gaa act tca gaa cca	ttt gtc aaa gtg aaa	6612
Ala Thr Phe Glu Cys	Glu Thr Ser Glu Pro	Phe Val Lys Val Lys	
2150	2155	2160	
tgg tat aaa gat ggt	atg gag gtt cat gag	gga gat aaa tac agg	6657
Trp Tyr Lys Asp Gly	Met Glu Val His Glu	Gly Asp Lys Tyr Arg	
2165	2170	2175	
atg cac tct gac aga	aag gtt cac ttc ctc	tcc ata ctg acc att	6702
Met His Ser Asp Arg	Lys Val His Phe Leu	Ser Ile Leu Thr Ile	
2180	2185	2190	
gat acg tct gat gct	gaa gat tac agc tgt	gta ctt gtg gaa gat	6747
Asp Thr Ser Asp Ala	Glu Asp Tyr Ser Cys	Val Leu Val Glu Asp	
2195	2200	2205	
gaa aat gtc aaa acg	act gct aaa ctt att	gtt gaa ggt gca gtt	6792
Glu Asn Val Lys Thr	Thr Ala Lys Leu Ile	Val Glu Gly Ala Val	
2210	2215	2220	
gtt gag ttt gtg aaa	gaa ctt cag gac ata	gaa gtt cca gaa tca	6837
Val Glu Phe Val Lys	Glu Leu Gln Asp Ile	Glu Val Pro Glu Ser	

2225	2230	2235	
tat tca gga gaa tta Tyr Ser Gly Glu Leu	gag tgc att gta tcc Glu Cys Ile Val Ser	cca gaa aat ata gaa Pro Glu Asn Ile Glu	6882
2240	2245	2250	
gga aaa tgg tat cat Gly Lys Trp Tyr His	aat gat gtg gag ctt Asn Asp Val Glu Leu	aaa tcc aat ggc aaa Lys Ser Asn Gly Lys	6927
2255	2260	2265	
tat aca att aca tct Tyr Thr Ile Thr Ser	cgt cgt gga cgt cag Arg Arg Gly Arg Gln	aac ctc acg gtc aag Asn Leu Thr Val Lys	6972
2270	2275	2280	
gat gta acc aag gag Asp Val Thr Lys Glu	gac cag gga gaa tac Asp Gln Gly Glu Tyr	agc ttt gtc atc gac Ser Phe Val Ile Asp	7017
2285	2290	2295	
ggg aaa aag aca acc Gly Lys Lys Thr Cys	tgt aaa tta aag atg Lys Leu Lys Met	aaa ccc cgc ccc att Lys Pro Arg Pro Ile	7062
2300	2305	2310	
gct atc cta caa gga Ala Ile Leu Gln Gly	ctt agt gac caa aaa Leu Ser Asp Gln Lys	gtc tgt gag ggt gac Val Cys Glu Gly Asp	7107
2315	2320	2325	
att gtt cag ctt gaa Ile Val Gln Leu Glu	gtt aaa gtc tcc ttg Val Lys Val Ser Leu	gaa agt gtg gaa ggc Glu Ser Val Glu Gly	7152
2330	2335	2340	
gtc tgg atg aaa gac Val Trp Met Lys Asp	gac ggc caa gaa gtg cag Gly Gln Glu Val Gln	ccc agt gac agg gtt Pro Ser Asp Arg Val	7197
2345	2350	2355	
cac att gtg ata gac His Ile Val Ile Asp	aaa caa tct cat atg Lys Gln Ser His Met	ctg ctc att gaa gac Leu Leu Ile Glu Asp	7242
2360	2365	2370	
atg act aag gaa gat Met Thr Lys Glu Asp	gct gga aat tac tct Ala Gly Asn Tyr Ser	ttc acc att cca gcc Phe Thr Ile Pro Ala	7287
2375	2380	2385	
ctt ggc ctc tcc acc Leu Gly Leu Ser Thr	agt ggg cgt gtc tct Ser Gly Arg Val Ser	gtc tat agt gtg gac Val Tyr Ser Val Asp	7332
2390	2395	2400	
gtg ata aca cct cta Val Ile Thr Pro Leu	aaa gat gtt aat gtg Lys Asp Val Asn Val	att gaa ggc acc aag Ile Glu Gly Thr Lys	7377
2405	2410	2415	
gct gtg ctt gaa tgt Ala Val Leu Glu Cys	aag gtg tca gtc cct Lys Val Ser Val Pro	gat gtg act tct gtt Asp Val Thr Ser Val	7422
2420	2425	2430	
aag tgg tac tta aat Lys Trp Tyr Leu Asn	gat gaa caa atc aag Asp Glu Gln Ile Lys	cct gat gac cgt gta Pro Asp Asp Arg Val	7467
2435	2440	2445	

cag	gcc	att	gtg	aaa	ggt	act	aaa	cag	cga	ctc	gtc	att	aac	cga	7512
Gln	Ala	Ile	Val	Lys	Gly	Thr	Lys	Gln	Arg	Leu	Val	Ile	Asn	Arg	
2450					2455					2460					
act	cat	gct	tca	gac	gaa	gga	cct	tat	aag	ctg	ata	gtt	ggc	aga	7557
Thr	His	Ala	Ser	Asp	Glu	Gly	Pro	Tyr	Lys	Leu	Ile	Val	Gly	Arg	
2465					2470					2475					
gtt	gaa	acc	aac	tgt	aat	ctc	tct	gta	gaa	aaa	att	aaa	att	atc	7602
Val	Glu	Thr	Asn	Cys	Asn	Leu	Ser	Val	Glu	Lys	Ile	Lys	Ile	Ile	
2480					2485					2490					
aga	ggt	ctt	cgt	gac	ctt	acc	tgt	aca	gaa	act	caa	aat	gtg	gtg	7647
Arg	Gly	Leu	Arg	Asp	Leu	Thr	Cys	Thr	Glu	Thr	Gln	Asn	Val	Val	
2495					2500					2505					
ttt	gag	gtt	gag	ctg	tcc	cac	tct	gga	att	gat	gtc	ctg	tgg	aat	7692
Phe	Glu	Val	Glu	Leu	Ser	His	Ser	Gly	Ile	Asp	Val	Leu	Trp	Asn	
2510					2515					2520					
ttt	aag	gac	aag	gaa	atc	aag	ccc	agt	tct	aaa	tat	aaa	att	gaa	7737
Phe	Lys	Asp	Lys	Glu	Ile	Lys	Pro	Ser	Ser	Lys	Tyr	Lys	Ile	Glu	
2525					2530					2535					
gca	cat	gga	aaa	ata	tat	aaa	ttg	aca	gtt	cta	aat	atg	atg	aaa	7782
Ala	His	Gly	Lys	Ile	Tyr	Lys	Leu	Thr	Val	Leu	Asn	Met	Met	Lys	
2540					2545					2550					
gat	gat	gaa	gga	aaa	tac	aca	ttt	tac	gcg	gga	gaa	aat	atg	aca	7827
Asp	Asp	Glu	Gly	Lys	Tyr	Thr	Phe	Tyr	Ala	Gly	Glu	Asn	Met	Thr	
2555					2560					2565					
tct	gga	aaa	ctt	act	gtg	gca	ggt	ggg	gcc	atc	tcc	aag	cca	ctc	7872
Ser	Gly	Lys	Leu	Thr	Val	Ala	Gly	Gly	Ala	Ile	Ser	Lys	Pro	Leu	
2570					2575					2580					
aca	gat	cag	acc	gtt	gct	gaa	tcc	cag	gaa	gct	gtg	ttt	gaa	tgt	7917
Thr	Asp	Gln	Thr	Val	Ala	Glu	Ser	Gln	Glu	Ala	Val	Phe	Glu	Cys	
2585					2590					2595					
gaa	gtt	gcc	aac	cca	gat	tcc	aaa	ggc	gaa	tgg	ttg	agg	gat	ggc	7962
Glu	Val	Ala	Asn	Pro	Asp	Ser	Lys	Gly	Glu	Trp	Leu	Arg	Asp	Gly	
2600					2605					2610					
aaa	cac	cta	cca	ctg	act	aac	aac	atc	aga	agt	gag	tct	gat	ggc	8007
Lys	His	Leu	Pro	Leu	Thr	Asn	Asn	Ile	Arg	Ser	Glu	Ser	Asp	Gly	
2615					2620					2625					
cac	aaa	agg	aga	ctt	atc	att	gct	gcc	acc	aaa	tta	gat	gac	att	8052
His	Lys	Arg	Arg	Leu	Ile	Ile	Ala	Ala	Thr	Lys	Leu	Asp	Asp	Ile	
2630					2635					2640					
gga	gaa	tat	acc	tac	aag	gtg	gcc	acc	tcc	aaa	aca	tct	gcc	aaa	8097
Gly	Glu	Tyr	Thr	Tyr	Lys	Val	Ala	Thr	Ser	Lys	Thr	Ser	Ala	Lys	
2645					2650					2655					
ctc	aaa	gtt	gaa	gct	gtc	aaa	att	aag	aag	act	ctg	aag	aac	ctc	8142
Leu	Lys	Val	Glu	Ala	Val	Lys	Ile	Lys	Lys	Thr	Leu	Lys	Asn	Leu	

2660	2665	2670	
aca gtg aca gaa aca Thr Val Thr Glu Thr 2675	cag gat gct gtt ttc Gln Asp Ala Val Phe 2680	act gtc gag ctt aca Thr Val Glu Leu Thr 2685	8187
cac cct aat gtc aaa His Pro Asn Val Lys 2690	ggt gtc cag tgg atc Gly Val Gln Trp Ile 2695	aaa aat gga gtt gtg Lys Asn Gly Val Val 2700	8232
ctg gaa tcc aat gaa Leu Glu Ser Asn Glu 2705	aag tat gct atc tct Lys Tyr Ala Ile Ser 2710	gtc aaa gga aca att Val Lys Gly Thr Ile 2715	8277
tac tct ctg agg att Tyr Ser Leu Arg Ile 2720	aaa aac tgt gcc atc Lys Asn Cys Ala Ile 2725	gtg gat gag tct gtt Val Asp Glu Ser Val 2730	8322
tat ggc ttc agg ctt Tyr Gly Phe Arg Leu 2735	gga agg ctt gga gcc Gly Arg Leu Gly Ala 2740	agt gcc aga ctg cac Ser Ala Arg Leu His 2745	8367
gtg gag act gtc aag Val Glu Thr Val Lys 2750	atc att aaa aag cca Ile Ile Lys Lys Pro 2755	aag gat gtg aca gcc Lys Asp Val Thr Ala 2760	8412
ttg gaa aat gcc act Leu Glu Asn Ala Thr 2765	gtt gcc ttt gaa gtt Val Ala Phe Glu Val 2770	agt gtt tcc cat gac Ser Val Ser His Asp 2775	8457
act gtt cca gta aaa Thr Val Pro Val Lys 2780	tgg ttc cat aag agt Trp Phe His Lys Ser 2785	gtg gaa att aag cca Val Glu Ile Lys Pro 2790	8502
agt gac aaa cac aga Ser Asp Lys His Arg 2795	ctg gtc tca gaa agg Leu Val Ser Glu Arg 2800	aaa gtc cac aag ctg Lys Val His Lys Leu 2805	8547
atg ctg cag aac atc Met Leu Gln Asn Ile 2810	tcc ccc tca gat gct Ser Pro Ser Asp Ala 2815	ggg gaa tac aca gct Gly Glu Tyr Thr Ala 2820	8592
gtg gtc ggg caa ttg Val Val Gly Gln Leu 2825	gaa tgc aaa gca aaa Glu Cys Lys Ala Lys 2830	ctg ttt gtg gag aca Leu Phe Val Glu Thr 2835	8637
tta cat att aca aaa Leu His Ile Thr Lys 2840	acc atg aaa aat atc Thr Met Lys Asn Ile 2845	gag gtg cct gag acc Glu Val Pro Glu Thr 2850	8682
aaa act gcc tct ttt Lys Thr Ala Ser Phe 2855	gag tgt gag gtg tcc Glu Cys Glu Val Ser 2860	cac ttc aat gtc cct His Phe Asn Val Pro 2865	8727
tcc atg tgg ctg aag Ser Met Trp Leu Lys 2870	aat ggt gtg gaa att Asn Gly Val Glu Ile 2875	gag atg agt gaa aag Glu Met Ser Glu Lys 2880	8772

ttc aag ata gtt gtg	cag gga aaa ctc cat	cag ctg atc atc atg	8817
Phe Lys Ile Val Val	Gln Gly Lys Leu His	Gln Leu Ile Ile Met	
2885	2890	2895	
aac acc agc aca gag	gac tcg gca gaa tac	aca ttt gtc tgt ggc	8862
Asn Thr Ser Thr Glu	Asp Ser Ala Glu Tyr	Thr Phe Val Cys Gly	
2900	2905	2910	
aat gac caa gtc agt	gcc acc ctg aca gtc	act cca atc atg att	8907
Asn Asp Gln Val Ser	Ala Thr Leu Thr Val	Thr Pro Ile Met Ile	
2915	2920	2925	
act tcc atg ctg aaa	gac atc aac gct gaa	gaa aaa gac act att	8952
Thr Ser Met Leu Lys	Asp Ile Asn Ala Glu	Glu Lys Asp Thr Ile	
2930	2935	2940	
act ttt gag gtg aca	gtg aac tat gaa ggc	atc tct tac aaa tgg	8997
Thr Phe Glu Val Thr	Val Asn Tyr Glu Gly	Ile Ser Tyr Lys Trp	
2945	2950	2955	
tta aag aat ggt gtg	gaa atc aaa tca act	gac aag tgc cag atg	9042
Leu Lys Asn Gly Val	Glu Ile Lys Ser Thr	Asp Lys Cys Gln Met	
2960	2965	2970	
aga acc aaa aag ctc	aca cac tca ctg aac	atc agg aat gtt cac	9087
Arg Thr Lys Lys Leu	Thr His Ser Leu Asn	Ile Arg Asn Val His	
2975	2980	2985	
ttt ggg gat gct gct	gac tac acc ttt gtg	gct gga aaa gca aca	9132
Phe Gly Asp Ala Ala	Asp Tyr Thr Phe Val	Ala Gly Lys Ala Thr	
2990	2995	3000	
tca aca gcc aca ctt	tat gtg gaa gct cgt	cat ata gaa ttt agg	9177
Ser Thr Ala Thr Leu	Tyr Val Glu Ala Arg	His Ile Glu Phe Arg	
3005	3010	3015	
aaa cac att aag gac	att aag gta ctg gag	aag aag cga gcc atg	9222
Lys His Ile Lys Asp	Ile Lys Val Leu Glu	Lys Lys Arg Ala Met	
3020	3025	3030	
ttt gaa tgt gaa gtt	tct gaa cct gac atc	act gta cag tgg atg	9267
Phe Glu Cys Glu Val	Ser Glu Pro Asp Ile	Thr Val Gln Trp Met	
3035	3040	3045	
aaa gat gac cag gaa	ctg cag atc aca gac	aga ata aag att cag	9312
Lys Asp Asp Gln Glu	Leu Gln Ile Thr Asp	Arg Ile Lys Ile Gln	
3050	3055	3060	
aag gag aaa tat gtc	cac cgc ctt ctg atc	cca tcc acc cgg atg	9357
Lys Glu Lys Tyr Val	His Arg Leu Leu Ile	Pro Ser Thr Arg Met	
3065	3070	3075	
tct gat gct ggg aag	tac aca gtg gtg gca	gga ggc aac gtg tca	9402
Ser Asp Ala Gly Lys	Tyr Thr Val Val Ala	Gly Gly Asn Val Ser	
3080	3085	3090	
act gca aaa ctc ttt	gta gaa ggc aga gat	gtt cgc atc cga agt	9447
Thr Ala Lys Leu Phe	Val Glu Gly Arg Asp	Val Arg Ile Arg Ser	

3095	3100	3105	
att aaa aag gag gtt Ile Lys Lys Glu Val 3110	cag gtc att gag aaa Gln Val Ile Glu Lys 3115	cag cgt gct gtt gtt Gln Arg Ala Val Val 3120	9492
gaa ttt gag gtc aat Glu Phe Glu Val Asn 3125	gaa gac gat gtt gat Glu Asp Asp Val Asp 3130	gcc cac tgg tat aaa Ala His Trp Tyr Lys 3135	9537
gat ggc att gaa atc Asp Gly Ile Glu Ile 3140	aat ttc caa gtt caa Asn Phe Gln Val Gln 3145	gaa cga cac aaa tat Glu Arg His Lys Tyr 3150	9582
gta gtg gaa aga aga Val Val Glu Arg Arg 3155	atc cac cga atg ttt Ile His Arg Met Phe 3160	atc tct gag acc aga Ile Ser Glu Thr Arg 3165	9627
cag agc gat gca gga Gln Ser Asp Ala Gly 3170	gaa tac acc ttt gtg Glu Tyr Thr Phe Val 3175	gca gga agg aac agg Ala Gly Arg Asn Arg 3180	9672
agt tct gtc act ctc Ser Ser Val Thr Leu 3185	tat gtc aat gct cct Tyr Val Asn Ala Pro 3190	gaa ccg ccc caa gtt Glu Pro Pro Gln Val 3195	9717
ctg cag gag ctc cag Leu Gln Glu Leu Gln 3200	cct gtc act gtg cag Pro Val Thr Val Gln 3205	tct ggc aag cct gcc Ser Gly Lys Pro Ala 3210	9762
cgc ttc tgt gcc atg Arg Phe Cys Ala Met 3215	ata tcc gga aga cca Ile Ser Gly Arg Pro 3220	cag ccc aaa att tcc Gln Pro Lys Ile Ser 3225	9807
tgg tac aag gaa gag Trp Tyr Lys Glu Glu 3230	cag ctg ctt tcc act Gln Leu Leu Ser Thr 3235	ggc ttc aag tgc aaa Gly Phe Lys Cys Lys 3240	9852
ttt ctt cat gat ggg Phe Leu His Asp Gly 3245	caa gag tac acg ctt Gln Glu Tyr Thr Leu 3250	ttg cta att gaa gcc Leu Leu Ile Glu Ala 3255	9897
ttc cca gag gat gcg Phe Pro Glu Asp Ala 3260	gca gtc tat acc tgt Ala Val Tyr Thr Cys 3265	gaa gcc aag aat gac Glu Ala Lys Asn Asp 3270	9942
tat ggt gtt gcc aca Tyr Gly Val Ala Thr 3275	aca tca gct tca ctc Thr Ser Ala Ser Leu 3280	tca gtg gaa gtt cca Ser Val Glu Val Pro 3285	9987
gaa gtt gtg tct cct Glu Val Val Ser Pro 3290	gat cag gaa atg cct Asp Gln Glu Met Pro 3295	gtt tat cca cct gcc Val Tyr Pro Pro Ala 3300	10032
atc atc acc ccg ctt Ile Ile Thr Pro Leu 3305	cag gac act gtc act Gln Asp Thr Val Thr 3310	tct gaa ggg cag cca Ser Glu Gly Gln Pro 3315	10077

gcc cgt ttt caa tgc	cggtt gca aca	gat cta aaa gtg tcg	10122
Ala Arg Phe Gln Cys	Arg Val Ser Gly Thr	Asp Leu Lys Val Ser	
3320	3325	3330	
tgg tac agc aaa gac	aag aaa atc aag cca	tct cggtt ttc ttt aga	10167
Trp Tyr Ser Lys Asp	Lys Lys Ile Lys Pro	Ser Arg Phe Phe Arg	
3335	3340	3345	
atg act caa ttt gaa	gac act tat caa ctg	gaa att gcc gaa gct	10212
Met Thr Gln Phe Glu	Asp Thr Tyr Gln Leu	Glu Ile Ala Glu Ala	
3350	3355	3360	
tat cca gaa gat gaa	gga act tac acg ttt	gtt gct aat aat gct	10257
Tyr Pro Glu Asp Glu	Gly Thr Tyr Thr Phe	Val Ala Asn Asn Ala	
3365	3370	3375	
gta ggc caa gta tca	agc aca gcc aac ctg	agt ctg gaa gct cct	10302
Val Gly Gln Val Ser	Ser Thr Ala Asn Leu	Ser Leu Glu Ala Pro	
3380	3385	3390	
gaa tca att ttg cat	gag agg att gaa caa	gag att gag atg gaa	10347
Glu Ser Ile Leu His	Glu Arg Ile Glu Gln	Glu Ile Glu Met Glu	
3395	3400	3405	
atg aaa gag ttt tct	agt tct ttt ctg tct	gcc gag gaa gaa gga	10392
Met Lys Glu Phe Ser	Ser Ser Phe Leu Ser	Ala Glu Glu Glu Gly	
3410	3415	3420	
ctt cat agc gcc gaa	ctt caa tta tct aaa	ata aat gaa aca ctt	10437
Leu His Ser Ala Glu	Leu Gln Leu Ser Lys	Ile Asn Glu Thr Leu	
3425	3430	3435	
gaa ctt ttg tct gaa	tct cca gtt tac cca	act aaa ttt gat tcc	10482
Glu Leu Leu Ser Glu	Ser Pro Val Tyr Pro	Thr Lys Phe Asp Ser	
3440	3445	3450	
gaa aag gaa ggc act	ggc cca att ttc atc	aaa gaa gtg tca aat	10527
Glu Lys Glu Gly Thr	Gly Pro Ile Phe Ile	Lys Glu Val Ser Asn	
3455	3460	3465	
gct gat ata agc atg	ggg gat gtg gct aca	ctg tct gta act gtc	10572
Ala Asp Ile Ser Met	Gly Asp Val Ala Thr	Leu Ser Val Thr Val	
3470	3475	3480	
att ggc atc ccc aaa	cct aaa att cag tgg	ttc ttt aat gga gtg	10617
Ile Gly Ile Pro Lys	Pro Lys Ile Gln Trp	Phe Phe Asn Gly Val	
3485	3490	3495	
cta tta acc cct tct	gct gac tac aaa ttt	gtt ttt gac ggt gat	10662
Leu Leu Thr Pro Ser	Ala Asp Tyr Lys Phe	Val Phe Asp Gly Asp	
3500	3505	3510	
gat cat agc ctg atc	att ctg ttc acc aaa	ttg gag gat gag gga	10707
Asp His Ser Leu Ile	Ile Leu Phe Thr Lys	Leu Glu Asp Glu Gly	
3515	3520	3525	
gag tat aca tgt atg	gcc agt aat gac tat	gga aag aca ata tgt	10752
Glu Tyr Thr Cys Met	Ala Ser Asn Asp Tyr	Gly Lys Thr Ile Cys	

3530	3535	3540	
agt gcc tat cta aaa Ser Ala Tyr Leu Lys 3545	att aat tcc aaa gga Ile Asn Ser Lys Gly 3550	gag ggt cac aaa gac Glu Gly His Lys Asp 3555	10797
act gaa aca gaa tca Thr Glu Thr Glu Ser 3560	gca gtg gca aaa tct Ala Val Ala Lys Ser 3565	ctg gaa aag ctg gga Leu Glu Lys Leu Gly 3570	10842
ggt cct tgt cct cct Gly Pro Cys Pro Pro 3575	cac ttc ctt aag gag His Phe Leu Lys Glu 3580	tta aaa cca att cgc Leu Lys Pro Ile Arg 3585	10887
tgt gct caa ggg ctt Cys Ala Gln Gly Leu 3590	cct gcc atc ttt gag Pro Ala Ile Phe Glu 3595	tac aca gtg gtt gga Tyr Thr Val Val Gly 3600	10932
gag cct gcc cct act Glu Pro Ala Pro Thr 3605	gtt aca tgg ttc aaa Val Thr Trp Phe Lys 3610	gaa aac aag cag ctt Glu Asn Lys Gln Leu 3615	10977
tgc acc agt gtt tat Cys Thr Ser Val Tyr 3620	tac act atc att cat Tyr Thr Ile Ile His 3625	aac cct aat ggc tct Asn Pro Asn Gly Ser 3630	11022
gga act ttc att gtc Gly Thr Phe Ile Val 3635	aat gac cct cag agg Asn Asp Pro Gln Arg 3640	gaa gac agt ggc ctc Glu Asp Ser Gly Leu 3645	11067
tat atc tgt aaa gca Tyr Ile Cys Lys Ala 3650	gag aat atg ttg ggt Glu Asn Met Leu Gly 3655	gag tcc acc tgt gca Glu Ser Thr Cys Ala 3660	11112
gca gag ctg ctt gtg Ala Glu Leu Leu Val 3665	ctt ctg gaa gac aca Leu Leu Glu Asp Thr 3670	gac atg act gat acc Asp Met Thr Asp Thr 3675	11157
ccc tgc aaa gca aag Pro Cys Lys Ala Lys 3680	tcc aca cca gag gct Ser Thr Pro Glu Ala 3685	cct gag gat ttt cca Pro Glu Asp Phe Pro 3690	11202
cag aca ccc tta aag Gln Thr Pro Leu Lys 3695	ggt ccc gca gtt gaa Gly Pro Ala Val Glu 3700	gca ctt gac tcg gag Ala Leu Asp Ser Glu 3705	11247
cag gaa att gca acg Gln Glu Ile Ala Thr 3710	ttt gta aaa gac acc Phe Val Lys Asp Thr 3715	att ttg aaa gct gct Ile Leu Lys Ala Ala 3720	11292
tta att aca gaa gaa Leu Ile Thr Glu Glu 3725	aac cag caa cta tct Asn Gln Gln Leu Ser 3730	tat gag cat att gct Tyr Glu His Ile Ala 3735	11337
aaa gcc aat gaa ttg Lys Ala Asn Glu Leu 3740	agc agt cag ctt cct Ser Ser Gln Leu Pro 3745	ttg gga gct cag gaa Leu Gly Ala Gln Glu 3750	11382

ttg caa tcc att ttg gag caa gac aag ctc act cct gaa agc acc	11427
Leu Gln Ser Ile Leu Glu Gln Asp Lys Leu Thr Pro Glu Ser Thr	
3755 3760 3765	
agg gaa ttt ctt tgc atc aat ggc agt att cac ttt cag cct ctc	11472
Arg Glu Phe Leu Cys Ile Asn Gly Ser Ile His Phe Gln Pro Leu	
3770 3775 3780	
aag gaa cca tct ccc aac cta cag ctg cag att gta cag tcc cag	11517
Lys Glu Pro Ser Pro Asn Leu Gln Leu Gln Ile Val Gln Ser Gln	
3785 3790 3795	
aaa acc ttc tcc aaa gaa ggt att cta atg cct gaa gag cct gag	11562
Lys Thr Phe Ser Lys Glu Gly Ile Leu Met Pro Glu Glu Pro Glu	
3800 3805 3810	
aca cag gca gtt cta tca gat acc gag aaa atc ttc cca agt gcc	11607
Thr Gln Ala Val Leu Ser Asp Thr Glu Lys Ile Phe Pro Ser Ala	
3815 3820 3825	
atg tcc ata gaa caa att aat tca tta aca gtt gag cct ctg aaa	11652
Met Ser Ile Glu Gln Ile Asn Ser Leu Thr Val Glu Pro Leu Lys	
3830 3835 3840	
act tta tta gct gaa cct gaa ggg aat tat cca cag tct tca ata	11697
Thr Leu Leu Ala Glu Pro Glu Gly Asn Tyr Pro Gln Ser Ser Ile	
3845 3850 3855	
gaa cct cca atg cat tct tat cta acc tct gtg gct gag gaa gta	11742
Glu Pro Pro Met His Ser Tyr Leu Thr Ser Val Ala Glu Glu Val	
3860 3865 3870	
ctt tca cta aaa gaa aag aca gta tct gac acc aac aga gag caa	11787
Leu Ser Leu Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln	
3875 3880 3885	
aga gtg act ctt caa aag caa gag gca caa agt gcg ctc atc ttg	11832
Arg Val Thr Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu	
3890 3895 3900	
agt cag agc tta gct gag gga cac gtg gag agt ctc cag agt cct	11877
Ser Gln Ser Leu Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro	
3905 3910 3915	
gat gtc atg atc tct cag gta aac tat gag ccc cta gtc cct tca	11922
Asp Val Met Ile Ser Gln Val Asn Tyr Glu Pro Leu Val Pro Ser	
3920 3925 3930	
gaa cac tca tgc aca gaa gga ggt aaa att ttg ata gaa agt gca	11967
Glu His Ser Cys Thr Glu Gly Gly Lys Ile Leu Ile Glu Ser Ala	
3935 3940 3945	
aat cca ctg gaa aat gca ggg caa gat tct gcg gtc aga att gag	12012
Asn Pro Leu Glu Asn Ala Gly Gln Asp Ser Ala Val Arg Ile Glu	
3950 3955 3960	
gaa ggc aag tcc tta aga ttt cca cta gca ctt gaa gaa aag cag	12057
Glu Gly Lys Ser Leu Arg Phe Pro Leu Ala Leu Glu Glu Lys Gln	

3965	3970	3975	
gta ctg ctc aaa gaa	gag cat tct gac aac	gtg gtg atg ccc cca	12102
Val Leu Leu Lys Glu	Glu His Ser Asp Asn	Val Val Met Pro Pro	
3980	3985	3990	
gac caa atc att gag	tct aaa aga gag ccc	gtg gca ata aag aaa	12147
Asp Gln Ile Ile Glu	Ser Lys Arg Glu Pro	Val Ala Ile Lys Lys	
3995	4000	4005	
gtg cag gag gta cag	gga agg gac ctt ctt	tct aag gaa agc ttg	12192
Val Gln Glu Val Gln	Gly Arg Asp Leu Leu	Ser Lys Glu Ser Leu	
4010	4015	4020	
ctt tct ggt att cca	gaa gag cag aga tta	aac ctg aaa att caa	12237
Leu Ser Gly Ile Pro	Glu Glu Gln Arg Leu	Asn Leu Lys Ile Gln	
4025	4030	4035	
atc tgc cgg gct ttg	caa gca gcc gtg gcc	agc gag cag cca ggt	12282
Ile Cys Arg Ala Leu	Gln Ala Ala Val Ala	Ser Glu Gln Pro Gly	
4040	4045	4050	
ctt ttc tct gag tgg	cta aga aat att gaa	aag gtg gag gtc gag	12327
Leu Phe Ser Glu Trp	Leu Arg Asn Ile Glu	Lys Val Glu Val Glu	
4055	4060	4065	
gct gta aac atc acc	caa gag ccc aga cac	atc atg tgc atg tac	12372
Ala Val Asn Ile Thr	Gln Glu Pro Arg His	Ile Met Cys Met Tyr	
4070	4075	4080	
ctt gtt act tcg gca	aag tct gta aca gaa	gaa gta acc atc att	12417
Leu Val Thr Ser Ala	Lys Ser Val Thr Glu	Glu Val Thr Ile Ile	
4085	4090	4095	
att gaa gat gtt gat	cct caa atg gct aac	ctg aaa atg gaa ctt	12462
Ile Glu Asp Val Asp	Pro Gln Met Ala Asn	Leu Lys Met Glu Leu	
4100	4105	4110	
agg gat gct ttg tgt	gct att ata tat gag	gaa ata gac atc cta	12507
Arg Asp Ala Leu Cys	Ala Ile Ile Tyr Glu	Glu Ile Asp Ile Leu	
4115	4120	4125	
aca gct gag ggt cct	aga att cag caa gga	gcc aaa aca agt ttg	12552
Thr Ala Glu Gly Pro	Arg Ile Gln Gln Gly	Ala Lys Thr Ser Leu	
4130	4135	4140	
caa gaa gaa atg gat	tct ttt tca ggt tca	cag aag gtt gaa ccc	12597
Gln Glu Glu Met Asp	Ser Phe Ser Gly Ser	Gln Lys Val Glu Pro	
4145	4150	4155	
att act gaa cca gaa	gtt gaa tct aaa tat	ctg atc tca act gaa	12642
Ile Thr Glu Pro Glu	Val Glu Ser Lys Tyr	Leu Ile Ser Thr Glu	
4160	4165	4170	
gag gtc agt tat ttt	aac gtg caa agt agg	gtt aaa tat ttg gat	12687
Glu Val Ser Tyr Phe	Asn Val Gln Ser Arg	Val Lys Tyr Leu Asp	
4175	4180	4185	

gcc aca cct gtc act	aaa ggg gtt gct tca	gct gtt gtc tct gac	12732
Ala Thr Pro Val Thr	Lys Gly Val Ala Ser	Ala Val Val Ser Asp	
4190	4195	4200	
gaa aaa caa gat gag	agt ctg aaa cca tca	gag gaa aaa gag gag	12777
Glu Lys Gln Asp Glu	Ser Leu Lys Pro Ser	Glu Glu Lys Glu Glu	
4205	4210	4215	
tct tcc tct gaa agt	ggt act gag gag gtt	gct aca gta aag ata	12822
Ser Ser Ser Glu Ser	Gly Thr Glu Glu Val	Ala Thr Val Lys Ile	
4220	4225	4230	
cag gaa gct gag ggt	ggc tta atc aaa gag	gat ggc ccc atg ata	12867
Gln Glu Ala Glu Gly	Gly Leu Ile Lys Glu	Asp Gly Pro Met Ile	
4235	4240	4245	
cat aca cct tta gtg	gac act gtt tct gag	gaa ggt gat att gta	12912
His Thr Pro Leu Val	Asp Thr Val Ser Glu	Glu Gly Asp Ile Val	
4250	4255	4260	
cac ctc aca aca tcc	ata aca aat gct aaa	gag gtg aat tgg tat	12957
His Leu Thr Thr Ser	Ile Thr Asn Ala Lys	Glu Val Asn Trp Tyr	
4265	4270	4275	
ttt gag aat aaa ctg	gtg cct tca gat gaa	aag ttc aag tgt tta	13002
Phe Glu Asn Lys Leu	Val Pro Ser Asp Glu	Lys Phe Lys Cys Leu	
4280	4285	4290	
caa gat caa aat aca	tat acg cta gtc atc	gac aaa gta aat acc	13047
Gln Asp Gln Asn Thr	Tyr Thr Leu Val Ile	Asp Lys Val Asn Thr	
4295	4300	4305	
gaa gac cat caa gga	gag tat gtc tgt gag	gcc ttg aat gac agc	13092
Glu Asp His Gln Gly	Glu Tyr Val Cys Glu	Ala Leu Asn Asp Ser	
4310	4315	4320	
gga aaa aca gca act	tca gcc aaa ctc act	gta gta aaa aga gct	13137
Gly Lys Thr Ala Thr	Ser Ala Lys Leu Thr	Val Val Lys Arg Ala	
4325	4330	4335	
gcc cca gtg atc aag	agg aaa atc gaa ccc	ctg gaa gta gca ctg	13182
Ala Pro Val Ile Lys	Arg Lys Ile Glu Pro	Leu Glu Val Ala Leu	
4340	4345	4350	
ggc cac cta gcc aaa	ttc acc tgt gag atc	caa agt gct ccc aat	13227
Gly His Leu Ala Lys	Phe Thr Cys Glu Ile	Gln Ser Ala Pro Asn	
4355	4360	4365	
gtc cgg ttc cag tgg	ttt aaa gct ggc cga	gaa att tat gag agt	13272
Val Arg Phe Gln Trp	Phe Lys Ala Gly Arg	Glu Ile Tyr Glu Ser	
4370	4375	4380	
gac aag tgt tct att	cga tct tca aag tat	atc tcc agc ctt gaa	13317
Asp Lys Cys Ser Ile	Arg Ser Ser Lys Tyr	Ile Ser Ser Leu Glu	
4385	4390	4395	
atc ctg aga acc cag	gtg gtt gac tgc ggc	gag tat aca tgc aaa	13362
Ile Leu Arg Thr Gln	Val Val Asp Cys Gly	Glu Tyr Thr Cys Lys	

4400	4405	4410	
gct tcc aat gag tat Ala Ser Asn Glu Tyr	ggc agt gtc agc tgt Gly Ser Val Ser Cys	aca gcc aca cta act Thr Ala Thr Leu Thr	13407
4415	4420	4425	
gtg aca gtg cct gga Val Thr Val Pro Gly	ggt gaa aag aaa gtt Gly Glu Lys Lys Val	cgc aaa tta ctt ccg Arg Lys Leu Leu Pro	13452
4430	4435	4440	
gaa cgt aaa cct gaa Glu Arg Lys Pro Glu	cca aag gaa gaa gtt Pro Lys Glu Glu Val	gtt ctg aaa agc gtt Val Leu Lys Ser Val	13497
4445	4450	4455	
cta aga aaa aga cct Leu Arg Lys Arg Pro	gaa gaa gaa cct Glu Glu Glu Pro	aaa gta gaa cct aaa Lys Val Glu Pro Lys	13542
4460	4465	4470	
aaa cta gaa aaa gtt Lys Leu Glu Lys Val	aaa aaa cct gca gta Lys Lys Pro Ala Val	cca gaa cca cca cct Pro Glu Pro Pro Pro	13587
4475	4480	4485	
cca aaa cct gtt gaa Pro Lys Pro Val Glu	gag gtt gaa gta cct Glu Val Glu Val Pro	act gtt aca aaa agg Thr Val Thr Lys Arg	13632
4490	4495	4500	
gaa agg aag att cct Glu Arg Lys Ile Pro	gaa cca aca aaa gtg Glu Pro Thr Lys Val	cct gaa atc aag cca Pro Glu Ile Lys Pro	13677
4505	4510	4515	
gca ata cct ctc cct Ala Ile Pro Leu Pro	gca cct gaa ccg aaa Ala Pro Glu Pro Lys	cca aag ccc gaa gca Pro Lys Pro Glu Ala	13722
4520	4525	4530	
gaa gtg aaa aca atc Glu Val Lys Thr Ile	aaa cca cct cct gtg Lys Pro Pro Pro Val	gaa cct gaa cca acc Glu Pro Glu Pro Thr	13767
4535	4540	4545	
ccc atc gct gcc cca Pro Ile Ala Ala Pro	gta aca gtg cca gtg Val Thr Val Pro Val	gtt gga aag aaa gca Val Gly Lys Lys Ala	13812
4550	4555	4560	
gaa gcc aaa gca cct Glu Ala Lys Ala Pro	aag gaa gag gct gcc Lys Glu Glu Ala Ala	aag cca aaa ggt cct Lys Pro Lys Gly Pro	13857
4565	4570	4575	
atc aaa ggt gta ccc Ile Lys Gly Val Pro	aaa aag act cct tca Lys Lys Thr Pro Ser	cca ata gaa gcc gaa Pro Ile Glu Ala Glu	13902
4580	4585	4590	
agg aga aag tta agg Arg Arg Lys Leu Arg	cca gga agt ggt gga Pro Gly Ser Gly Gly	gag aaa cct cct gat Glu Lys Pro Pro Asp	13947
4595	4600	4605	
gaa gcc ccg ttc acc Glu Ala Pro Phe Thr	tac cag cta aag gct Tyr Gln Leu Lys Ala	gtg cca ctg aag ttt Val Pro Leu Lys Phe	13992
4610	4615	4620	

gtg aaa gaa atc aaa	gac atc atc ttg aca	gaa tca gag ttc gtt	14037
Val Lys Glu Ile Lys	Asp Ile Ile Leu Thr	Glu Ser Glu Phe Val	
4625	4630	4635	
ggc tct tca gca atc	ttt gaa tgt ttg gtc	tcc cct tcc act gca	14082
Gly Ser Ser Ala Ile	Phe Glu Cys Leu Val	Ser Pro Ser Thr Ala	
4640	4645	4650	
att aca acc tgg atg	aaa gac ggt agc aat	atc cgt gag agt ccc	14127
Ile Thr Thr Trp Met	Lys Asp Gly Ser Asn	Ile Arg Glu Ser Pro	
4655	4660	4665	
aag cac agg ttt att	gca gat ggt aaa gac	aga aag ctg cac atc	14172
Lys His Arg Phe Ile	Ala Asp Gly Lys Asp	Arg Lys Leu His Ile	
4670	4675	4680	
att gat gtt caa ctt	tcc gat gct ggt gaa	tac acc tgt gtt tta	14217
Ile Asp Val Gln Leu	Ser Asp Ala Gly Glu	Tyr Thr Cys Val Leu	
4685	4690	4695	
cgt ttg gga aac aaa	gaa aag acc tcc acg	gct aaa ctt gtt gta	14262
Arg Leu Gly Asn Lys	Glu Lys Thr Ser Thr	Ala Lys Leu Val Val	
4700	4705	4710	
gaa gaa ctt cct gtg	cgt ttt gta aaa aca	ctg gaa gag gaa gtc	14307
Glu Glu Leu Pro Val	Arg Phe Val Lys Thr	Leu Glu Glu Glu Val	
4715	4720	4725	
aca gtg gtc aaa gga	cag cca ttg tac ttg	agc tgc gag tta aac	14352
Thr Val Val Lys Gly	Gln Pro Leu Tyr Leu	Ser Cys Glu Leu Asn	
4730	4735	4740	
aaa gag cgt gac gtg	gtc tgg agg aag gat	ggc aag att gtg gtg	14397
Lys Glu Arg Asp Val	Val Trp Arg Lys Asp	Gly Lys Ile Val Val	
4745	4750	4755	
gag aaa cct ggc cga	att gtg cca ggc gtc	att ggc ttg atg cg	14442
Glu Lys Pro Gly Arg	Ile Val Pro Gly Val	Ile Gly Leu Met Arg	
4760	4765	4770	
gct ctg acc atc aac	gat gca gat gac aca	gat gct gga aca tac	14487
Ala Leu Thr Ile Asn	Asp Ala Asp Asp Thr	Asp Ala Gly Thr Tyr	
4775	4780	4785	
aca gtt act gtg gaa	aac gcc aac aac ctg	gag tgt tca tct tgc	14532
Thr Val Thr Val Glu	Asn Ala Asn Asn Leu	Glu Cys Ser Ser Cys	
4790	4795	4800	
gta aaa gta gta gaa	gtc att aga gat tgg	ctg gtg aaa cct ata	14577
Val Lys Val Val Glu	Val Ile Arg Asp Trp	Leu Val Lys Pro Ile	
4805	4810	4815	
cga gac cag cat gtg	aaa ccc aag ggg aca	gct att ttt gcc tgt	14622
Arg Asp Gln His Val	Lys Pro Lys Gly Thr	Ala Ile Phe Ala Cys	
4820	4825	4830	
gat ata gca aaa gat	act cca aac att aag	tgg ttc aaa gga tat	14667
Asp Ile Ala Lys Asp	Thr Pro Asn Ile Lys	Trp Phe Lys Gly Tyr	

4835	4840	4845	
gat gaa atc cct gcg Asp Glu Ile Pro Ala 4850	gaa cca aat gat aag Glu Pro Asn Asp Lys 4855	act gaa ata ctg aga Thr Glu Ile Leu Arg 4860	14712
gat gga aat cat ctg Asp Gly Asn His Leu 4865	tac ctc aaa att aag Tyr Leu Lys Ile Lys 4870	aat gct atg cca gaa Asn Ala Met Pro Glu 4875	14757
gat att gct gag tat Asp Ile Ala Glu Tyr 4880	gca gtg gaa att gaa Ala Val Glu Ile Glu 4885	gga aaa aga tac cct Gly Lys Arg Tyr Pro 4890	14802
gca aag ctg aca ctt Ala Lys Leu Thr Leu 4895	gga gag cgt gaa gtt Gly Glu Arg Glu Val 4900	gaa ctg ctt aaa cca Glu Leu Leu Lys Pro 4905	14847
ata gag gac gtt acc Ile Glu Asp Val Thr 4910	att tat gag aaa gaa Ile Tyr Glu Lys Glu 4915	agt gca agc ttt gat Ser Ala Ser Phe Asp 4920	14892
gca gaa atc tca gag Ala Glu Ile Ser Glu 4925	gca gac att cct gga Ala Asp Ile Pro Gly 4930	caa tgg aaa ctg aaa Gln Trp Lys Leu Lys 4935	14937
gga gaa ctt cta agg Gly Glu Leu Leu Arg 4940	ccc tca cct act tgt Pro Ser Pro Thr Cys 4945	gaa atc aaa gca gaa Glu Ile Lys Ala Glu 4950	14982
ggt gga aaa cgc ttc Gly Gly Lys Arg Phe 4955	tta act ttg cac aaa Leu Thr Leu His Lys 4960	gtc aaa ctg gac caa Val Lys Leu Asp Gln 4965	15027
gct ggt gaa gtc ctc Ala Gly Glu Val Leu 4970	tac cag gcc ctt aat Tyr Gln Ala Leu Asn 4975	gca att aca act gcc Ala Ile Thr Thr Ala 4980	15072
att ttg aca gta aaa Ile Leu Thr Val Lys 4985	gaa atc gaa ctt gac Glu Ile Glu Leu Asp 4990	ttt gct gtg ccc ctg Phe Ala Val Pro Leu 4995	15117
aag gat gtc act gtt Lys Asp Val Thr Val 5000	cca gaa agg cga cag Pro Glu Arg Arg Gln 5005	gct cga ttc gaa tgt Ala Arg Phe Glu Cys 5010	15162
gtc ctc acc cga gag Val Leu Thr Arg Glu 5015	gca aat gtt ata tgg Ala Asn Val Ile Trp 5020	tcc aaa gga cct gat Ser Lys Gly Pro Asp 5025	15207
ata att aag tca tct Ile Ile Lys Ser Ser 5030	gac aaa ttt gat atc Asp Lys Phe Asp Ile 5035	atc gct gat gga aag Ile Ala Asp Gly Lys 5040	15252
aaa cat att ctt gtt Lys His Ile Leu Val 5045	att aat gat tct caa Ile Asn Asp Ser Gln 5050	ttt gat gat gaa ggg Phe Asp Asp Glu Gly 5055	15297

gtc tat act gct gag	gtg gag ggc aag aag	acc tca gct cgg ttg	15342
Val Tyr Thr Ala Glu	Val Glu Gly Lys Lys	Thr Ser Ala Arg Leu	
5060	5065	5070	
ttt gtc aca ggt ata	aga ctg aaa ttc atg	tca cct ctt gaa gat	15387
Phe Val Thr Gly Ile	Arg Leu Lys Phe Met	Ser Pro Leu Glu Asp	
5075	5080	5085	
caa aca gta aaa gaa	ggt gaa aca gca act	ttt gtt tgt gaa ctt	15432
Gln Thr Val Lys Glu	Gly Glu Thr Ala Thr	Phe Val Cys Glu Leu	
5090	5095	5100	
tct cat gaa aaa atg	cat gta gtc tgg ttc	aaa aat gat gcc aaa	15477
Ser His Glu Lys Met	His Val Val Trp Phe	Lys Asn Asp Ala Lys	
5105	5110	5115	
ctc cat aca agc aga	aca gta ctc atc tct	tct gag ggc aag act	15522
Leu His Thr Ser Arg	Thr Val Leu Ile Ser	Ser Glu Gly Lys Thr	
5120	5125	5130	
cac aaa ttg gaa atg	aaa gaa gtg aca ttg	gat gat ata tct cag	15567
His Lys Leu Glu Met	Lys Glu Val Thr Leu	Asp Asp Ile Ser Gln	
5135	5140	5145	
ata aaa gct caa gtc	aag gag ctg agc tcc	aca gca cag ctg aag	15612
Ile Lys Ala Gln Val	Lys Glu Leu Ser Ser	Thr Ala Gln Leu Lys	
5150	5155	5160	
gtc tta gag gcc gat	ccc tac ttc act gtg	aaa tta cat gac aaa	15657
Val Leu Glu Ala Asp	Pro Tyr Phe Thr Val	Lys Leu His Asp Lys	
5165	5170	5175	
act gca gtg gag aag	gat gag att act ttg	aag tgt gaa gtg agc	15702
Thr Ala Val Glu Lys	Asp Glu Ile Thr Leu	Lys Cys Glu Val Ser	
5180	5185	5190	
aaa gat gta cca gtg	aaa tgg ttc aaa gat	ggt gaa gag att gtc	15747
Lys Asp Val Pro Val	Lys Trp Phe Lys Asp	Gly Glu Glu Ile Val	
5195	5200	5205	
cct tca ccc aaa tat	tct atc aag gca gat	ggc ctg cgc cgc atc	15792
Pro Ser Pro Lys Tyr	Ser Ile Lys Ala Asp	Gly Leu Arg Arg Ile	
5210	5215	5220	
tta aaa atc aaa aag	gcg gac ctt aaa gat	aaa ggc gaa tat gtg	15837
Leu Lys Ile Lys Lys	Ala Asp Leu Lys Asp	Lys Gly Glu Tyr Val	
5225	5230	5235	
tgt gac tgt ggc aca	gac aag acc aag gca	aat gtt act gtt gag	15882
Cys Asp Cys Gly Thr	Asp Lys Thr Lys Ala	Asn Val Thr Val Glu	
5240	5245	5250	
gct cga cta ata gaa	gtg gaa aag cct ctg	tac gga gta gag gtg	15927
Ala Arg Leu Ile Glu	Val Glu Lys Pro Leu	Tyr Gly Val Glu Val	
5255	5260	5265	
ttt gtt ggt gaa aca	gcc cac ttt gaa att	gaa ctt tct gaa cct	15972
Phe Val Gly Glu Thr	Ala His Phe Glu Ile	Glu Leu Ser Glu Pro	

5270	5275	5280	
gat gtt cac ggc cag tgg aag ctg aaa gga Asp Val His Gly Gln Trp Lys Leu Lys Gly 5285	cag cct ttg aca gct Gln Pro Leu Thr Ala 5290	5295	16017
tcc cct gac tgt gaa atc att gag gat gga Ser Pro Asp Cys Glu Ile Ile Glu Asp Gly 5300	aag aag cat att ctg Lys Lys His Ile Leu 5305	5310	16062
atc ctt cat aac tgt cag ctg ggt atg aca Ile Leu His Asn Cys Gln Leu Gly Met Thr 5315	gga gag gtt tcc ttc Gly Glu Val Ser Phe 5320	5325	16107
cag gct gct aat gcc aaa tct gca gcc aat Gln Ala Ala Asn Ala Lys Ser Ala Ala Asn 5330	ctg aaa gtc aaa gaa Leu Lys Val Lys Glu 5335	5340	16152
ttg cct ctt atc ttc atc aca cct ctc agt Leu Pro Leu Ile Phe Ile Thr Pro Leu Ser 5345	gat gtt aaa gtc ttc Asp Val Lys Val Phe 5350	5355	16197
gag aaa gat gag gct aag ttt gag tgt gaa Glu Lys Asp Glu Ala Lys Phe Glu Cys Glu 5360	gta tcc agg gag ccc Val Ser Arg Glu Pro 5365	5370	16242
aaa aca ttc cgt tgg cta aaa gga acc cag Lys Thr Phe Arg Trp Leu Lys Gly Thr Gln 5375	gaa atc aca ggt gat Glu Ile Thr Gly Asp 5380	5385	16287
gac aga ttt gag ctt ata aag gat ggc act Asp Arg Phe Glu Leu Ile Lys Asp Gly Thr 5390	aag cat tca atg gtg Lys His Ser Met Val 5395	5400	16332
atc aag tca gct gct ttt gaa gat gaa gca Ile Lys Ser Ala Ala Phe Glu Asp Glu Ala 5405	aaa tac atg ttt gaa Lys Tyr Met Phe Glu 5410	5415	16377
gct gaa gat aag cac aca agt ggc aaa ctg Ala Glu Asp Lys His Thr Ser Gly Lys Leu 5420	atc att gaa gga atc Ile Ile Glu Gly Ile 5425	5430	16422
cgg ctc aaa ttc ctc acc cct ctc aaa gat Arg Leu Lys Phe Leu Thr Pro Leu Lys Asp 5435	gta act gcc aaa gag Val Thr Ala Lys Glu 5440	5445	16467
aag gaa agt gct gta ttt act gtg gag tta Lys Glu Ser Ala Val Phe Thr Val Glu Leu 5450	tct cat gat aac atc Ser His Asp Asn Ile 5455	5460	16512
cga gtt aaa tgg ttc aag aat gac cag cgc Arg Val Lys Trp Phe Lys Asn Asp Gln Arg 5465	cta cac acc acc agg Leu His Thr Thr Arg 5470	5475	16557
tcg gtc tca atg caa gac gaa ggg aaa act Ser Val Ser Met Gln Asp Glu Gly Lys Thr 5480	cat tcg atc aca ttc His Ser Ile Thr Phe 5485	5490	16602

aaa gac ctg tct att	gat gac acc tcc caa	att aga gta gaa gct	16647
Lys Asp Leu Ser Ile	Asp Asp Thr Ser Gln	Ile Arg Val Glu Ala	
5495	5500	5505	
atg ggg atg agt tca	gaa gct aaa ctc act	gtg ctt gag gga gac	16692
Met Gly Met Ser Ser	Glu Ala Lys Leu Thr	Val Leu Glu Gly Asp	
5510	5515	5520	
cca tat ttt aca gga	aaa ctt caa gat tat	act ggt gta gag aaa	16737
Pro Tyr Phe Thr Gly	Lys Leu Gln Asp Tyr	Thr Gly Val Glu Lys	
5525	5530	5535	
gat gaa gtt att cta	cag tgt gaa att agc	aaa gca gat gca cca	16782
Asp Glu Val Ile Leu	Gln Cys Glu Ile Ser	Lys Ala Asp Ala Pro	
5540	5545	5550	
gtg aaa tgg ttt aag	gat ggg aag gaa ata	aag cca tcc aaa aat	16827
Val Lys Trp Phe Lys	Asp Gly Lys Glu Ile	Lys Pro Ser Lys Asn	
5555	5560	5565	
gct gtt att aag aca	gat ggc aag aaa cgc	atg cta atc cta aag	16872
Ala Val Ile Lys Thr	Asp Gly Lys Lys Arg	Met Leu Ile Leu Lys	
5570	5575	5580	
aaa gcc ttg aaa tca	gat att gga cag tac	acc tgt gac tgt ggg	16917
Lys Ala Leu Lys Ser	Asp Ile Gly Gln Tyr	Thr Cys Asp Cys Gly	
5585	5590	5595	
aca gat aag acc tca	gga aaa ctt gac att	gag gat cgg gaa att	16962
Thr Asp Lys Thr Ser	Gly Lys Leu Asp Ile	Glu Asp Arg Glu Ile	
5600	5605	5610	
aaa ctg gtg cga ccc	ctg cac agt gtg gag	gtg atg gag act gag	17007
Lys Leu Val Arg Pro	Leu His Ser Val Glu	Val Met Glu Thr Glu	
5615	5620	5625	
aca gca cgc ttt gaa	acc gaa atc tct gaa	gat gat atc cac gcc	17052
Thr Ala Arg Phe Glu	Thr Glu Ile Ser Glu	Asp Asp Ile His Ala	
5630	5635	5640	
aac tgg aaa ctc aag	gga gag gcc cta ctc	caa aca cct gat tgt	17097
Asn Trp Lys Leu Lys	Gly Glu Ala Leu Leu	Gln Thr Pro Asp Cys	
5645	5650	5655	
gaa att aag gaa gaa	ggc aaa ata cac tcc	ctt gtt ttg cac aac	17142
Glu Ile Lys Glu Glu	Gly Lys Ile His Ser	Leu Val Leu His Asn	
5660	5665	5670	
tgt cgc ctg gac cag	acg ggt ggg gtg gat	ttc caa gct gcc aat	17187
Cys Arg Leu Asp Gln	Thr Gly Gly Val Asp	Phe Gln Ala Ala Asn	
5675	5680	5685	
gtt aaa tct agt gcc	cac ctc cga gtt aag	cca cga gta att ggt	17232
Val Lys Ser Ser Ala	His Leu Arg Val Lys	Pro Arg Val Ile Gly	
5690	5695	5700	
ctt ctg agg cct tta	aag gat gtc acc gtg	act gca ggg gaa aca	17277
Leu Leu Arg Pro Leu	Lys Asp Val Thr Val	Thr Ala Gly Glu Thr	

5705	5710	5715	
gcc acc ttc gac tgc Ala Thr Phe Asp Cys 5720	gag ctc tcc tac gaa Glu Leu Ser Tyr Glu 5725	gat atc cca gtg gaa Asp Ile Pro Val Glu 5730	17322
tgg tat ctc aaa ggg Trp Tyr Leu Lys Gly 5735	aag aaa cta gag ccc Lys Lys Leu Glu Pro 5740	agc gat aag gtg gtc Ser Asp Lys Val Val 5745	17367
cca cgt tca gaa gga Pro Arg Ser Glu Gly 5750	aaa gtt cat aca ctt Lys Val His Thr Leu 5755	act ctg agg gat gta Thr Leu Arg Asp Val 5760	17412
aag tta gaa gat gct Lys Leu Glu Asp Ala 5765	ggg gaa gtc caa cta Gly Glu Val Gln Leu 5770	aca gca aaa gat ttc Thr Ala Lys Asp Phe 5775	17457
aaa act cac gcc aac Lys Thr His Ala Asn 5780	ctc ttt gtg aaa gaa Leu Phe Val Lys Glu 5785	ccc cca gtt gaa ttc Pro Pro Val Glu Phe 5790	17502
act aag cct ctt gag Thr Lys Pro Leu Glu 5795	gac cag acg gtc gaa Asp Gln Thr Val Glu 5800	gag gga gcc act gca Glu Gly Ala Thr Ala 5805	17547
gtg ctg gag tgt gaa Val Leu Glu Cys Glu 5810	gtc tcc aga gaa aat Val Ser Arg Glu Asn 5815	gct aag gtg aaa tgg Ala Lys Val Lys Trp 5820	17592
ttc aaa aat ggg aca Phe Lys Asn Gly Thr 5825	gaa atc ctc aaa agc Glu Ile Leu Lys Ser 5830	aag aag tat gaa att Lys Lys Tyr Glu Ile 5835	17637
gtt gct gat ggc agg Val Ala Asp Gly Arg 5840	gtc aga aaa ctt gtt Val Arg Lys Leu Val 5845	ata cat gac tgt acc Ile His Asp Cys Thr 5850	17682
cca gag gat att aaa Pro Glu Asp Ile Lys 5855	aca tac act tgt gat Thr Tyr Thr Cys Asp 5860	gct aag gat ttt aag Ala Lys Asp Phe Lys 5865	17727
act tcc tgt aac ctg Thr Ser Cys Asn Leu 5870	aat gtc gtg cct cct Asn Val Val Pro Pro 5875	cat gtg gaa ttc tta His Val Glu Phe Leu 5880	17772
aga cca ctc acc gac Arg Pro Leu Thr Asp 5885	ctt caa gtt aga gaa Leu Gln Val Arg Glu 5890	aaa gaa atg gct cga Lys Glu Met Ala Arg 5895	17817
ttt gag tgt gaa ctt Phe Glu Cys Glu Leu 5900	tcc cga gaa aat gct Ser Arg Glu Asn Ala 5905	aag gtt aag tgg ttt Lys Val Lys Trp Phe 5910	17862
aaa gat ggt gct gaa Lys Asp Gly Ala Glu 5915	att aaa aag ggc aaa Ile Lys Lys Gly Lys 5920	aaa tat gac atc ata Lys Tyr Asp Ile Ile 5925	17907

tcc aag gga gca gtg	cgc att ctt gtc atc	aac aaa tgt cta ctg	17952
Ser Lys Gly Ala Val	Arg Ile Leu Val Ile	Asn Lys Cys Leu Leu	
5930	5935	5940	
gat gat gaa gct gaa	tat tcc tgt gaa gta	agg aca gcg aga act	17997
Asp Asp Glu Ala Glu	Tyr Ser Cys Glu Val	Arg Thr Ala Arg Thr	
5945	5950	5955	
tct ggc atg ctg aca	gtt ctg gaa gaa gaa	gct gtc ttt acc aaa	18042
Ser Gly Met Leu Thr	Val Leu Glu Glu Ala	Ala Val Phe Thr Lys	
5960	5965	5970	
aat ctt gcc aac att	gaa gtt agt gaa aca	gac act ata aaa ctg	18087
Asn Leu Ala Asn Ile	Glu Val Ser Glu Thr	Asp Thr Ile Lys Leu	
5975	5980	5985	
gtt tgt gaa gtc tcc	aaa cct ggc gca gaa	gtg att tgg tat aaa	18132
Val Cys Glu Val Ser	Lys Pro Gly Ala Glu	Val Ile Trp Tyr Lys	
5990	5995	6000	
ggg gat gag gag atc	att gaa aca gga aga	tat gaa ata ctg act	18177
Gly Asp Glu Glu Ile	Ile Glu Thr Gly Arg	Tyr Glu Ile Leu Thr	
6005	6010	6015	
gaa gga cgg aag aga	atc ctg gtc att cag	aac gct cac ctt gag	18222
Glu Gly Arg Lys Arg	Ile Leu Val Ile Gln	Asn Ala His Leu Glu	
6020	6025	6030	
gat gct ggc aac tac	aac tgt cga ctc cca	agc tct cga acc gat	18267
Asp Ala Gly Asn Tyr	Asn Cys Arg Leu Pro	Ser Ser Arg Thr Asp	
6035	6040	6045	
ggc aaa gtc aaa gta	cat gaa ctg gct gct	gaa ttt atc tca aag	18312
Gly Lys Val Lys Val	His Glu Leu Ala Ala	Glu Phe Ile Ser Lys	
6050	6055	6060	
cct caa aac ctt gaa	ata ctt gaa gga gaa	aag gct gaa ttt gtc	18357
Pro Gln Asn Leu Glu	Ile Leu Glu Gly Glu	Lys Ala Glu Phe Val	
6065	6070	6075	
tgc tct ata tca aaa	gaa agc ttt cca gtc	cag tgg aag agg gat	18402
Cys Ser Ile Ser Lys	Glu Ser Phe Pro Val	Gln Trp Lys Arg Asp	
6080	6085	6090	
gat aag aca ctt gaa	tct gga gat aaa tat	gac gtt att gct gat	18447
Asp Lys Thr Leu Glu	Ser Gly Asp Lys Tyr	Asp Val Ile Ala Asp	
6095	6100	6105	
ggt aaa aag agg gtc	cta gtt gtg aaa gat	gcc aca tta caa gat	18492
Gly Lys Lys Arg Val	Leu Val Val Lys Asp	Ala Thr Leu Gln Asp	
6110	6115	6120	
atg ggc act tac gtt	gtc atg gta ggg gcc	gcc aga gca gca gct	18537
Met Gly Thr Tyr Val	Val Met Val Gly Ala	Ala Arg Ala Ala Ala	
6125	6130	6135	
cac ttg aca gtc att	gaa aaa ctc agg atc	gta gtt cct ctt aag	18582
His Leu Thr Val Ile	Glu Lys Leu Arg Ile	Val Val Pro Leu Lys	

6140	6145	6150	
gac acc cgg gtg aag Asp Thr Arg Val Lys 6155	gaa caa cag gaa gtt Glu Gln Gln Glu Val 6160	gtc ttc aac tgt gaa Val Phe Asn Cys Glu 6165	18627
gtc aat act gaa ggt Val Asn Thr Glu Gly 6170	gcc aaa gcc aaa tgg Ala Lys Ala Lys Trp 6175	ttc aga aat gaa gaa Phe Arg Asn Glu Glu 6180	18672
gct ata ttt gat agt Ala Ile Phe Asp Ser 6185	tca aaa tac atc att Ser Lys Tyr Ile Ile 6190	ctc caa aaa gac cta Leu Gln Lys Asp Leu 6195	18717
gtc tac acc ctc aga Val Tyr Thr Leu Arg 6200	att aga gat gca cac Ile Arg Asp Ala His 6205	tta gat gac caa gcc Leu Asp Asp Gln Ala 6210	18762
aac tat aat gtg tct Asn Tyr Asn Val Ser 6215	ttg acc aat cac aga Leu Thr Asn His Arg 6220	ggt gaa aat gtt aaa Gly Glu Asn Val Lys 6225	18807
agt gca gcc aat cta Ser Ala Ala Asn Leu 6230	ata gta gaa gag gaa Ile Val Glu Glu Glu 6235	gac ctt agg att gtt Asp Leu Arg Ile Val 6240	18852
gag cct ctt aaa gat Glu Pro Leu Lys Asp 6245	att gaa aca atg gag Ile Glu Thr Met Glu 6250	aag aaa tct gtc aca Lys Lys Ser Val Thr 6255	18897
ttc tgg tgc aag gtg Phe Trp Cys Lys Val 6260	aat cgt ctc aat gta Asn Arg Leu Asn Val 6265	aca ctg aag tgg acc Thr Leu Lys Trp Thr 6270	18942
aaa aat ggt gaa gaa Lys Asn Gly Glu Glu 6275	gtg cct ttt gac aac Val Pro Phe Asp Asn 6280	cgt gtc tca tac aga Arg Val Ser Tyr Arg 6285	18987
gtt gat aag tac aag Val Asp Lys Tyr Lys 6290	cac atg tta acc att His Met Leu Thr Ile 6295	aaa gac tgt ggc ttc Lys Asp Cys Gly Phe 6300	19032
cca gat gaa ggt gaa Pro Asp Glu Gly Glu 6305	tac att gtc act gct Tyr Ile Val Thr Ala 6310	gga caa gat aaa tct Gly Gln Asp Lys Ser 6315	19077
gtt gct gag ctt ctc Val Ala Glu Leu Leu 6320	atc ata gaa gcc ccg Ile Ile Glu Ala Pro 6325	aca gaa ttt gtg gaa Thr Glu Phe Val Glu 6330	19122
cac ttg gaa gat cag His Leu Glu Asp Gln 6335	aca gtc act gag ttc Thr Val Thr Glu Phe 6340	gat gac gct gtc ttc Asp Asp Ala Val Phe 6345	19167
tcc tgc cag ctc tcc Ser Cys Gln Leu Ser 6350	aga gag aaa gcc aat Arg Glu Lys Ala Asn 6355	gta aaa tgg tac aga Val Lys Trp Tyr Arg 6360	19212

aat	ggg	aga	gaa	atc	aaa	gaa	ggc	aaa	aaa	tac	aaa	ttt	gaa	aaa		19257
Asn	Gly	Arg	Glu	Ile	Lys	Glu	Gly	Lys	Lys	Tyr	Lys	Phe	Glu	Lys		
				6365					6370					6375		
gat	gga	agt	ata	cac	aga	ctc	att	ata	aaa	gat	tgc	agg	ctg	gat		19302
Asp	Gly	Ser	Ile	His	Arg	Leu	Ile	Ile	Lys	Asp	Cys	Arg	Leu	Asp		
				6380					6385					6390		
gat	gag	tgt	gaa	tat	gct	tgc	ggg	gta	gaa	gac	agg	aag	tct	cgt		19347
Asp	Glu	Cys	Glu	Tyr	Ala	Cys	Gly	Val	Glu	Asp	Arg	Lys	Ser	Arg		
				6395					6400					6405		
gct	aga	ctt	ttt	gtg	gaa	gaa	att	cct	gtt	gag	atc	atc	agg	cct		19392
Ala	Arg	Leu	Phe	Val	Glu	Glu	Ile	Pro	Val	Glu	Ile	Ile	Arg	Pro		
				6410					6415					6420		
cca	caa	gat	att	ctt	gaa	gcc	cct	ggt	gct	gat	gtt	gtc	ttt	tta		19437
Pro	Gln	Asp	Ile	Leu	Glu	Ala	Pro	Gly	Ala	Asp	Val	Val	Phe	Leu		
				6425					6430					6435		
gca	gaa	ctc	aat	aaa	gat	aag	gtg	gaa	gtc	caa	tgg	cta	aga	aat		19482
Ala	Glu	Leu	Asn	Lys	Asp	Lys	Val	Glu	Val	Gln	Trp	Leu	Arg	Asn		
				6440					6445					6450		
aac	atg	gtt	gtt	gtc	cag	ggt	gat	aaa	cac	cag	atg	atg	agt	gaa		19527
Asn	Met	Val	Val	Val	Gln	Gly	Asp	Lys	His	Gln	Met	Met	Ser	Glu		
				6455					6460					6465		
gga	aag	ata	cat	cga	cta	cag	att	tgt	gat	att	aag	ccc	cgt	gac		19572
Gly	Lys	Ile	His	Arg	Leu	Gln	Ile	Cys	Asp	Ile	Lys	Pro	Arg	Asp		
				6470					6475					6480		
cag	ggt	gaa	tac	aga	ttt	att	gcc	aaa	gac	aaa	gaa	gcc	aga	gct		19617
Gln	Gly	Glu	Tyr	Arg	Phe	Ile	Ala	Lys	Asp	Lys	Glu	Ala	Arg	Ala		
				6485					6490					6495		
aag	ctt	gaa	ctg	gca	gct	gca	cca	aaa	atc	aag	aca	gct	gac	caa		19662
Lys	Leu	Glu	Leu	Ala	Ala	Ala	Pro	Lys	Ile	Lys	Thr	Ala	Asp	Gln		
				6500					6505					6510		
gac	ctt	gtg	gtt	gat	gtt	ggc	aag	cct	ctg	aca	atg	gtg	gtg	cca		19707
Asp	Leu	Val	Val	Asp	Val	Gly	Lys	Pro	Leu	Thr	Met	Val	Val	Pro		
				6515					6520					6525		
tat	gat	gcc	tac	ccc	aaa	gca	gaa	gct	gaa	tgg	ttt	aaa	gaa	aat		19752
Tyr	Asp	Ala	Tyr	Pro	Lys	Ala	Glu	Ala	Glu	Trp	Phe	Lys	Glu	Asn		
				6530					6535					6540		
gaa	cct	tta	tct	aca	aaa	acc	att	gat	act	acg	gct	gaa	caa	act		19797
Glu	Pro	Leu	Ser	Thr	Lys	Thr	Ile	Asp	Thr	Thr	Ala	Glu	Gln	Thr		
				6545					6550					6555		
tct	ttc	aga	att	tta	gaa	gcc	aag	aaa	gga	gac	aaa	ggg	agg	tat		19842
Ser	Phe	Arg	Ile	Leu	Glu	Ala	Lys	Lys	Gly	Asp	Lys	Gly	Arg	Tyr		
				6560					6565					6570		
aaa	att	gtg	ctt	cag	aac	aaa	cat	gga	aaa	gca	gaa	gga	ttc	atc		19887
Lys	Ile	Val	Leu	Gln	Asn	Lys	His	Gly	Lys	Ala	Glu	Gly	Phe	Ile		

6575	6580	6585	
aat tta aaa gtt att	gat gtt cct ggg cca	gta cgt aac tta gaa	19932
Asn Leu Lys Val Ile	Asp Val Pro Gly Pro	Val Arg Asn Leu Glu	
6590	6595	6600	
gtg aca gaa aca ttt	gat ggt gaa gtg agc	ctt gct tgg gaa gaa	19977
Val Thr Glu Thr Phe	Asp Gly Glu Val Ser	Leu Ala Trp Glu Glu	
6605	6610	6615	
cct tta act gat ggt	gga agc aaa atc ata	ggt tac gtt gtt gaa	20022
Pro Leu Thr Asp Gly	Gly Ser Lys Ile Ile	Gly Tyr Val Val Glu	
6620	6625	6630	
aga cgt gac att aag	aga aag acc tgg gtt	ctg gcc aca gac cgt	20067
Arg Arg Asp Ile Lys	Arg Lys Thr Trp Val	Leu Ala Thr Asp Arg	
6635	6640	6645	
gca gag agt tgt gag	ttt act gtc act ggt	cta cag aaa gga gga	20112
Ala Glu Ser Cys Glu	Phe Thr Val Thr Gly	Leu Gln Lys Gly Gly	
6650	6655	6660	
gtt gag tac cta ttc	cgt gtg agt gca aga	aac aga gtt ggc act	20157
Val Glu Tyr Leu Phe	Arg Val Ser Ala Arg	Asn Arg Val Gly Thr	
6665	6670	6675	
ggg gag cca gta gaa	act gac aat cct gta	gaa gca agg agt aaa	20202
Gly Glu Pro Val Glu	Thr Asp Asn Pro Val	Glu Ala Arg Ser Lys	
6680	6685	6690	
tat gat gtt cca ggc	cct cct ttg aat gta	acc atc act gat gtg	20247
Tyr Asp Val Pro Gly	Pro Pro Leu Asn Val	Thr Ile Thr Asp Val	
6695	6700	6705	
aat cga ttt ggt gtc	tca ctg aca tgg gaa	cca cca gag tat gat	20292
Asn Arg Phe Gly Val	Ser Leu Thr Trp Glu	Pro Pro Glu Tyr Asp	
6710	6715	6720	
gga ggt gct gag atc	aca aac tac gtc att	gaa tta aga gac aag	20337
Gly Gly Ala Glu Ile	Thr Asn Tyr Val Ile	Glu Leu Arg Asp Lys	
6725	6730	6735	
act tct atc agg tgg	gat act gcc atg act	gtg aga gct gaa gac	20382
Thr Ser Ile Arg Trp	Asp Thr Ala Met Thr	Val Arg Ala Glu Asp	
6740	6745	6750	
ctg tct gca act gtt	act gat gtg gta gaa	gga cag gag tac agt	20427
Leu Ser Ala Thr Val	Thr Asp Val Val Glu	Gly Gln Glu Tyr Ser	
6755	6760	6765	
tcc cga gtg aga gcc	caa aat cga att gga	gtt gga aaa cca agt	20472
Phe Arg Val Arg Ala	Gln Asn Arg Ile Gly	Val Gly Lys Pro Ser	
6770	6775	6780	
gca gcc aca ccc ttc	gtc aaa gtt gct gat	cca att gag aga cca	20517
Ala Ala Thr Pro Phe	Val Lys Val Ala Asp	Pro Ile Glu Arg Pro	
6785	6790	6795	

agt cct cct gta aac	cta act tcc tca gat	cag act cag tca tca	20562
Ser Pro Pro Val Asn	Leu Thr Ser Ser Asp	Gln Thr Gln Ser Ser	
6800	6805	6810	
gtt cag ctc aaa tgg	gaa cct cct ctg aaa	gat gga gga agc cca	20607
Val Gln Leu Lys Trp	Glu Pro Pro Leu Lys	Asp Gly Gly Ser Pro	
6815	6820	6825	
ata tta ggc tat ata	att gag cga tgc gaa	gaa gga aaa gat aat	20652
Ile Leu Gly Tyr Ile	Ile Glu Arg Cys Glu	Glu Gly Lys Asp Asn	
6830	6835	6840	
tgg att cgt tgc aat	atg aaa ctt gtc cct	gaa ctg act tac aag	20697
Trp Ile Arg Cys Asn	Met Lys Leu Val Pro	Glu Leu Thr Tyr Lys	
6845	6850	6855	
gtt acc gga ttg gaa	aaa gga aat aaa tat	tta tat aga gta tct	20742
Val Thr Gly Leu Glu	Lys Gly Asn Lys Tyr	Leu Tyr Arg Val Ser	
6860	6865	6870	
gca gaa aat aaa gct	ggt gtt tca gat cca	tct gaa att ctt ggt	20787
Ala Glu Asn Lys Ala	Gly Val Ser Asp Pro	Ser Glu Ile Leu Gly	
6875	6880	6885	
cct ctc acc gct gac	gat gca ttt gtt gaa	cca aca atg gat tta	20832
Pro Leu Thr Ala Asp	Asp Ala Phe Val Glu	Pro Thr Met Asp Leu	
6890	6895	6900	
agt gca ttt aaa gat	ggt ctg gaa gtt att	gtc cca aat cct atc	20877
Ser Ala Phe Lys Asp	Gly Leu Glu Val Ile	Val Pro Asn Pro Ile	
6905	6910	6915	
acg atc ctg gtt cca	agt aca ggc tat cca	agg cca act gca acc	20922
Thr Ile Leu Val Pro	Ser Thr Gly Tyr Pro	Arg Pro Thr Ala Thr	
6920	6925	6930	
tgg tgt ttt gga gat	aaa gta cta gaa aca	ggg gac cgg gtg aaa	20967
Trp Cys Phe Gly Asp	Lys Val Leu Glu Thr	Gly Asp Arg Val Lys	
6935	6940	6945	
atg aag acc ttg tct	gcc tat gcc gaa ctt	gtc att tct cca agt	21012
Met Lys Thr Leu Ser	Ala Tyr Ala Glu Leu	Val Ile Ser Pro Ser	
6950	6955	6960	
gaa cgt tca gac aag	ggc att tat aca ctg	aaa tta gaa aac cgt	21057
Glu Arg Ser Asp Lys	Gly Ile Tyr Thr Leu	Lys Leu Glu Asn Arg	
6965	6970	6975	
gtg aaa aca att tct	ggg gaa att gat gtc	aat gta att gct cgc	21102
Val Lys Thr Ile Ser	Gly Glu Ile Asp Val	Asn Val Ile Ala Arg	
6980	6985	6990	
cca agt gca ccc aaa	gaa ttg aaa ttt ggt	gat ata acc aag gac	21147
Pro Ser Ala Pro Lys	Glu Leu Lys Phe Gly	Asp Ile Thr Lys Asp	
6995	7000	7005	
tca gta cat ttg act	tgg gaa cca cct gat	gat gat gga gga agt	21192
Ser Val His Leu Thr	Trp Glu Pro Pro Asp	Asp Asp Gly Gly Ser	

7010	7015	7020	
ccg tta act gga tac Pro Leu Thr Gly Tyr 7025	gtt gtt gaa aaa cga Val Val Glu Lys Arg 7030	gaa gtc agc cgg aaa Glu Val Ser Arg Lys 7035	21237
aca tgg act aaa gtt Thr Trp Thr Lys Val 7040	atg gac ttt gtg act Met Asp Phe Val Thr 7045	gat cta gaa ttc aca Asp Leu Glu Phe Thr 7050	21282
gtt cct gat ctt gtt Val Pro Asp Leu Val 7055	caa gga aaa gag tac Gln Gly Lys Glu Tyr 7060	tta ttt aaa gtt tgt Leu Phe Lys Val Cys 7065	21327
gct cgt aac aaa tgt Ala Arg Asn Lys Cys 7070	ggc cct gga gaa cct Gly Pro Gly Glu Pro 7075	gca tat gtt gat gaa Ala Tyr Val Asp Glu 7080	21372
cct gta aat atg tca Pro Val Asn Met Ser 7085	act cct gca acg gta Thr Pro Ala Thr Val 7090	cct gac cca cca gag Pro Asp Pro Pro Glu 7095	21417
aat gtt aaa tgg aga Asn Val Lys Trp Arg 7100	gat cga aca gcc aat Asp Arg Thr Ala Asn 7105	agc atc ttc tta aca Ser Ile Phe Leu Thr 7110	21462
tgg gat cca cct aaa Trp Asp Pro Pro Lys 7115	aat gat ggt ggt tca Asn Asp Gly Gly Ser 7120	cgc atc aaa gga tat Arg Ile Lys Gly Tyr 7125	21507
ata gtt gaa aga tgt Ile Val Glu Arg Cys 7130	cca cgt ggt tct gat Pro Arg Gly Ser Asp 7135	aaa tgg gtt gcc tgt Lys Trp Val Ala Cys 7140	21552
gga gaa cct gtt gca Gly Glu Pro Val Ala 7145	gaa aca aaa atg gaa Glu Thr Lys Met Glu 7150	gtg aca ggt ctt gag Val Thr Gly Leu Glu 7155	21597
gaa ggc aaa tgg tat Glu Gly Lys Trp Tyr 7160	gcc tac cgc gtg aag Ala Tyr Arg Val Lys 7165	acc tta aac agg cag Thr Leu Asn Arg Gln 7170	21642
ggt gct agc aaa cca Gly Ala Ser Lys Pro 7175	agc aga ccc aca gag Ser Arg Pro Thr Glu 7180	gaa atc cag gct gtg Glu Ile Gln Ala Val 7185	21687
gac aca caa gag gcc Asp Thr Gln Glu Ala 7190	cca gaa atc ttc ctc Pro Glu Ile Phe Leu 7195	gat gtg aag ctc ctt Asp Val Lys Leu Leu 7200	21732
gct ggt ctc act gta Ala Gly Leu Thr Val 7205	aaa gct ggg acc aag Lys Ala Gly Thr Lys 7210	att gaa ctt cct gcc Ile Glu Leu Pro Ala 7215	21777
acc gta acc gga aaa Thr Val Thr Gly Lys 7220	cct gaa cct aaa ata Pro Glu Pro Lys Ile 7225	act tgg aca aag gct Thr Trp Thr Lys Ala 7230	21822

gat atg att ctg aag	cag gac aaa aga att	acc att gaa aat gtc	21867
Asp Met Ile Leu Lys	Gln Asp Lys Arg	Ile Thr Ile Glu Asn Val	
7235	7240	7245	
cct aag aaa tcc aca	gtg act att gtt gat	agt aag aga agt gac	21912
Pro Lys Lys Ser Thr	Val Thr Ile Val Asp	Ser Lys Arg Ser Asp	
7250	7255	7260	
act ggc aca tat atc	att gag gct gtg aat	gtg tgt ggc cgg gcc	21957
Thr Gly Thr Tyr Ile	Ile Glu Ala Val Asn	Val Cys Gly Arg Ala	
7265	7270	7275	
act gct gtg gtg gaa	gtg aac gtc tta gat	aaa ccc gga cca cca	22002
Thr Ala Val Val Glu	Val Asn Val Leu Asp	Lys Pro Gly Pro Pro	
7280	7285	7290	
gct gcc ttt gac atc	aca gat gta acc aat	gag tca tgt ctt cta	22047
Ala Ala Phe Asp Ile	Thr Asp Val Thr Asn	Glu Ser Cys Leu Leu	
7295	7300	7305	
aca tgg aac cca cca	cgc gat gat ggt gga	tct aag atc aca aac	22092
Thr Trp Asn Pro Pro	Arg Asp Asp Gly Gly	Ser Lys Ile Thr Asn	
7310	7315	7320	
tat gtt gtg gag aga	cga gca act gat agt	gaa gtg tgg cac aag	22137
Tyr Val Val Glu Arg	Arg Ala Thr Asp Ser	Glu Val Trp His Lys	
7325	7330	7335	
ctc tca tcc acc gtc	aag gat aca aac ttc	aag gcc acc aaa tta	22182
Leu Ser Ser Thr Val	Lys Asp Thr Asn Phe	Lys Ala Thr Lys Leu	
7340	7345	7350	
atc ccc aat aaa gag	tac atc ttc aga gtt	gct gca gaa aac atg	22227
Ile Pro Asn Lys Glu	Tyr Ile Phe Arg Val	Ala Ala Glu Asn Met	
7355	7360	7365	
tat ggt gct ggt gaa	cca gtt cag gcc tct	cca ata aca gcc aaa	22272
Tyr Gly Ala Gly Glu	Pro Val Gln Ala Ser	Pro Ile Thr Ala Lys	
7370	7375	7380	
tat cag ttt gat cca	cct ggt cct cca act	cgc cta gaa cct tct	22317
Tyr Gln Phe Asp Pro	Pro Gly Pro Pro Thr	Arg Leu Glu Pro Ser	
7385	7390	7395	
gat atc act aaa gac	gca gtg act ctc aca	tgg tgt gag cca gat	22362
Asp Ile Thr Lys Asp	Ala Val Thr Leu Thr	Trp Cys Glu Pro Asp	
7400	7405	7410	
gat gat ggt ggc agc	cca atc aca gga tac	tgg gtt gaa aga ctg	22407
Asp Asp Gly Gly Ser	Pro Ile Thr Gly Tyr	Trp Val Glu Arg Leu	
7415	7420	7425	
gat cct gat aca gat	aaa tgg gtt aga tgc	aat aag atg cca gta	22452
Asp Pro Asp Thr Asp	Lys Trp Val Arg Cys	Asn Lys Met Pro Val	
7430	7435	7440	
aag gac aca aca tac	aga gtg aaa ggt ctc	act aat aag aaa aaa	22497
Lys Asp Thr Thr Tyr	Arg Val Lys Gly Leu	Thr Asn Lys Lys Lys	

7445	7450	7455	
tac aga ttc cgt gtg	ttg gct gaa aat ctt	gct gga cct gga aaa	22542
Tyr Arg Phe Arg Val	Leu Ala Glu Asn Leu	Ala Gly Pro Gly Lys	
7460	7465	7470	
cca agc aaa tca act	gaa cca atc tta ata	aag gat ccc ata gat	22587
Pro Ser Lys Ser Thr	Glu Pro Ile Leu Ile	Lys Asp Pro Ile Asp	
7475	7480	7485	
cct cca tgg ccc cct	gga aaa cca act gta	aaa gat gta ggc aaa	22632
Pro Pro Trp Pro Pro	Gly Lys Pro Thr Val	Lys Asp Val Gly Lys	
7490	7495	7500	
aca tca gta agg ttg	aat tgg aca aaa cca	gaa cat gat gga ggt	22677
Thr Ser Val Arg Leu	Asn Trp Thr Lys Pro	Glu His Asp Gly Gly	
7505	7510	7515	
gca aag att gag tct	tat gtc att gaa atg	ctg aag act gga aca	22722
Ala Lys Ile Glu Ser	Tyr Val Ile Glu Met	Leu Lys Thr Gly Thr	
7520	7525	7530	
gat gag tgg gtc aga	gtg gcg gaa ggg gtt	ccc acc act cag cac	22767
Asp Glu Trp Val Arg	Val Ala Glu Gly Val	Pro Thr Thr Gln His	
7535	7540	7545	
ttg ctc cca ggg ctc	atg gaa gga cag gaa	tac tca ttc cga gtt	22812
Leu Leu Pro Gly Leu	Met Glu Gly Gln Glu	Tyr Ser Phe Arg Val	
7550	7555	7560	
aga gct gtg aat aag	gct ggg gaa agt gaa	ccc agt gaa ccc agt	22857
Arg Ala Val Asn Lys	Ala Gly Glu Ser Glu	Pro Ser Glu Pro Ser	
7565	7570	7575	
gac cct gtg ctt tgc	cgg gag aag cta tat	cct cca tca cca cca	22902
Asp Pro Val Leu Cys	Arg Glu Lys Leu Tyr	Pro Pro Ser Pro Pro	
7580	7585	7590	
cgc tgg ctt gaa gtt	att aat atc aca aaa	aat aca gca gac cta	22947
Arg Trp Leu Glu Val	Ile Asn Ile Thr Lys	Asn Thr Ala Asp Leu	
7595	7600	7605	
aaa tgg aca gtt cct	gag aaa gat gga ggg	tcc ccc atc acc aac	22992
Lys Trp Thr Val Pro	Glu Lys Asp Gly Gly	Ser Pro Ile Thr Asn	
7610	7615	7620	
tac att gtg gaa aag	aga gac gtc agg cga	aaa ggc tgg caa aca	23037
Tyr Ile Val Glu Lys	Arg Asp Val Arg Arg	Lys Gly Trp Gln Thr	
7625	7630	7635	
gtg gat acc act gtc	aag gac acc aag tgc	aca gtc acc cca ctg	23082
Val Asp Thr Thr Val	Lys Asp Thr Lys Cys	Thr Val Thr Pro Leu	
7640	7645	7650	
act gag ggc tct tta	tat gtg ttc cga gtt	gct gca gaa aat gct	23127
Thr Glu Gly Ser Leu	Tyr Val Phe Arg Val	Ala Ala Glu Asn Ala	
7655	7660	7665	

ata gga caa agc gac tac acc gaa att gag gac tct gtg ctg gcc	23172
Ile Gly Gln Ser Asp Tyr Thr Glu Ile Glu Asp Ser Val Leu Ala	
7670 7675 7680	
aaa gac acc ttt acc act cct gga cca ccc tac gcc ctg gca gtg	23217
Lys Asp Thr Phe Thr Thr Pro Gly Pro Pro Tyr Ala Leu Ala Val	
7685 7690 7695	
gtt gat gtg aca aaa cga cat gtt gac cta aag tgg gag cca cct	23262
Val Asp Val Thr Lys Arg His Val Asp Leu Lys Trp Glu Pro Pro	
7700 7705 7710	
aaa aat gat ggt gga aga cca ata cag aga tat gtc att gag aag	23307
Lys Asn Asp Gly Gly Arg Pro Ile Gln Arg Tyr Val Ile Glu Lys	
7715 7720 7725	
aaa gaa agg tta ggt acc cgt tgg gtg aaa gct gga aag act gca	23352
Lys Glu Arg Leu Gly Thr Arg Trp Val Lys Ala Gly Lys Thr Ala	
7730 7735 7740	
gga cct gac tgt aac ttc aga gta act gat gtc atc gaa gga aca	23397
Gly Pro Asp Cys Asn Phe Arg Val Thr Asp Val Ile Glu Gly Thr	
7745 7750 7755	
gag gtc cag ttt cag gtt cg gct gaa aat gaa gct gga gtt ggc	23442
Glu Val Gln Phe Gln Val Arg Ala Glu Asn Glu Ala Gly Val Gly	
7760 7765 7770	
cac cca agt gaa ccc aca gaa atc cta tcc att gaa gat cca aca	23487
His Pro Ser Glu Pro Thr Glu Ile Leu Ser Ile Glu Asp Pro Thr	
7775 7780 7785	
agt cct ccc tca cca ccc ctt gac cta cat gtg act gat gct ggg	23532
Ser Pro Pro Ser Pro Pro Leu Asp Leu His Val Thr Asp Ala Gly	
7790 7795 7800	
aga aaa cac att gcc att gct tgg aag cct cca gag aaa aat ggt	23577
Arg Lys His Ile Ala Ile Ala Trp Lys Pro Pro Glu Lys Asn Gly	
7805 7810 7815	
gga agt cct atc ata gga tac cat gtt gaa atg tgt cca gta ggc	23622
Gly Ser Pro Ile Ile Gly Tyr His Val Glu Met Cys Pro Val Gly	
7820 7825 7830	
act gag aaa tgg atg aga gtt aat tct cgc cca ata aag gac ttg	23667
Thr Glu Lys Trp Met Arg Val Asn Ser Arg Pro Ile Lys Asp Leu	
7835 7840 7845	
aaa ttc aag gtt gaa gaa ggt gtt gtt cct gac aaa gaa tat gtc	23712
Lys Phe Lys Val Glu Glu Gly Val Val Pro Asp Lys Glu Tyr Val	
7850 7855 7860	
ctg aga gtg aga gca gtc aat gct att ggt gtc agc gag cca tct	23757
Leu Arg Val Arg Ala Val Asn Ala Ile Gly Val Ser Glu Pro Ser	
7865 7870 7875	
gaa atc tct gaa aat gtg gtt gcc aaa gac cca gac tgc aag cca	23802
Glu Ile Ser Glu Asn Val Val Ala Lys Asp Pro Asp Cys Lys Pro	

7880	7885	7890	
aca att gac ctg gag	act cat gac att att	gtt att gaa ggt gaa	23847
Thr Ile Asp Leu Glu	Thr His Asp Ile Ile	Val Ile Glu Gly Glu	
7895	7900	7905	
aag tta agc att cct	gtt ccc ttc aga gct	gtc cca gtt cca act	23892
Lys Leu Ser Ile Pro	Val Pro Phe Arg Ala	Val Pro Val Pro Thr	
7910	7915	7920	
gtt agt tgg cat aaa	gat ggc aaa gaa gtt	aaa gca agt gat aga	23937
Val Ser Trp His Lys	Asp Gly Lys Glu Val	Lys Ala Ser Asp Arg	
7925	7930	7935	
tta aca atg aag aat	gat cac atc tct gca	cac ctt gaa gtt ccc	23982
Leu Thr Met Lys Asn	Asp His Ile Ser Ala	His Leu Glu Val Pro	
7940	7945	7950	
aag agt gtc cgt gca	gat gcc gga att tat	acc att aca ctg gag	24027
Lys Ser Val Arg Ala	Asp Ala Gly Ile Tyr	Thr Ile Thr Leu Glu	
7955	7960	7965	
aat aag ctc ggc tca	gca aca gcc tca atc	aat gtc aaa gtc ata	24072
Asn Lys Leu Gly Ser	Ala Thr Ala Ser Ile	Asn Val Lys Val Ile	
7970	7975	7980	
ggc cta cct gga cca	tgc aaa gat att aaa	gca agt gac att acc	24117
Gly Leu Pro Gly Pro	Cys Lys Asp Ile Lys	Ala Ser Asp Ile Thr	
7985	7990	7995	
aag agt tct tgt aag	tta act tgg gaa cct	cca gaa ttt gat ggt	24162
Lys Ser Ser Cys Lys	Leu Thr Trp Glu Pro	Pro Glu Phe Asp Gly	
8000	8005	8010	
gga acc cca att ctt	cat tat gtc ctg gag	cgc aga gaa gct ggg	24207
Gly Thr Pro Ile Leu	His Tyr Val Leu Glu	Arg Arg Glu Ala Gly	
8015	8020	8025	
agg aga aca tat ata	cca gtc atg tct ggt	gag aac aaa ctg tca	24252
Arg Arg Thr Tyr Ile	Pro Val Met Ser Gly	Glu Asn Lys Leu Ser	
8030	8035	8040	
tgg act gtg aag gat	ctc ata cca aat ggt	gaa tac ttc ttc cgt	24297
Trp Thr Val Lys Asp	Leu Ile Pro Asn Gly	Glu Tyr Phe Phe Arg	
8045	8050	8055	
gtt aaa gca gtc aac	aag gtt ggt gga gga	gaa tat att gaa ctg	24342
Val Lys Ala Val Asn	Lys Val Gly Gly	Glu Tyr Ile Glu Leu	
8060	8065	8070	
aaa aat cca gtc att	gct caa gat cca aag	caa ccc cct gat cca	24387
Lys Asn Pro Val Ile	Ala Gln Asp Pro Lys	Gln Pro Pro Asp Pro	
8075	8080	8085	
cct gta gat gta gag	gtt cat aat cct aca	gcg gag gca atg act	24432
Pro Val Asp Val Glu	Val His Asn Pro Thr	Ala Glu Ala Met Thr	
8090	8095	8100	

att aca tgg aag cca	cct ttg tat gat gga	ggg agc aag ata atg	24477
Ile Thr Trp Lys Pro	Pro Leu Tyr Asp Gly	Gly Ser Lys Ile Met	
8105	8110	8115	
ggc tac atc ata gag	aag att gct aag ggt	gaa gaa agg tgg aag	24522
Gly Tyr Ile Ile Glu	Lys Ile Ala Lys Gly	Glu Glu Arg Trp Lys	
8120	8125	8130	
aga tgc aat gaa cac	ctg gta cca atc ctg	acc tat aca gca aaa	24567
Arg Cys Asn Glu His	Leu Val Pro Ile Leu	Thr Tyr Thr Ala Lys	
8135	8140	8145	
gga ctt gaa gag ggg	aaa gag tac caa ttc	cgt gtg cga gca gag	24612
Gly Leu Glu Glu Gly	Lys Glu Tyr Gln Phe	Arg Val Arg Ala Glu	
8150	8155	8160	
aac gcc gcg ggt att	agt gaa cct tct cg	gct act cct cca acc	24657
Asn Ala Ala Gly Ile	Ser Glu Pro Ser Arg	Ala Thr Pro Pro Thr	
8165	8170	8175	
aaa gct gta gat ccc	att gat gcc ccc aaa	gtc att ctg aga aca	24702
Lys Ala Val Asp Pro	Ile Asp Ala Pro Lys	Val Ile Leu Arg Thr	
8180	8185	8190	
agc cta gaa gtg aaa	cga ggt gat gaa ata	gca ctt gat gca agt	24747
Ser Leu Glu Val Lys	Arg Gly Asp Glu Ile	Ala Leu Asp Ala Ser	
8195	8200	8205	
att tct gga tca cct	tac cca act att aca	tgg ata aag gat gaa	24792
Ile Ser Gly Ser Pro	Tyr Pro Thr Ile Thr	Trp Ile Lys Asp Glu	
8210	8215	8220	
aat gtt att gta cca	gag gaa att aag aag	cgt gca gca ccc ttg	24837
Asn Val Ile Val Pro	Glu Glu Ile Lys Lys	Arg Ala Ala Pro Leu	
8225	8230	8235	
gtt agg aga agg aag	ggt gaa gtt caa gaa	gaa gaa cca ttt gtc	24882
Val Arg Arg Arg Lys	Gly Glu Val Gln Glu	Glu Glu Pro Phe Val	
8240	8245	8250	
ctg cct ctg aca cag	cgt ttg agt att gac	aac agc aaa aag gga	24927
Leu Pro Leu Thr Gln	Arg Leu Ser Ile Asp	Asn Ser Lys Lys Gly	
8255	8260	8265	
gaa tct cag cta cgc	gtc cga gat tct ctc	cga cct gac cat ggt	24972
Glu Ser Gln Leu Arg	Val Arg Asp Ser Leu	Arg Pro Asp His Gly	
8270	8275	8280	
ctg tat atg atc aaa	gtt gaa aat gac cac	ggt att gca aaa gct	25017
Leu Tyr Met Ile Lys	Val Glu Asn Asp His	Gly Ile Ala Lys Ala	
8285	8290	8295	
cct tgt act gtc agt	gtg tta gat aca ccg	gga cca cca atc aac	25062
Pro Cys Thr Val Ser	Val Leu Asp Thr Pro	Gly Pro Pro Ile Asn	
8300	8305	8310	
ttt gta ttt gaa gat	atc aga aag acc tca	gtc ctt tgt aaa tgg	25107
Phe Val Phe Glu Asp	Ile Arg Lys Thr Ser	Val Leu Cys Lys Trp	

8315	8320	8325	
gaa cca ccc ctt gat	gat ggt ggc agt gaa	atc ata aac tac act	25152
Glu Pro Pro Leu Asp	Asp Gly Gly Ser Glu	Ile Ile Asn Tyr Thr	
8330	8335	8340	
ttg gaa aag aaa gac	aag aca aaa ccc gac	tca gaa tgg att gtt	25197
Leu Glu Lys Lys Asp	Lys Thr Lys Pro Asp	Ser Glu Trp Ile Val	
8345	8350	8355	
gtc act tca aca ctt	aga cat tgc aaa tat	tca gta aca aaa ctg	25242
Val Thr Ser Thr Leu	Arg His Cys Lys Tyr	Ser Val Thr Lys Leu	
8360	8365	8370	
att gaa gga aaa gag	tac ctc ttc cgt gta	aga gct gaa aac aga	25287
Ile Glu Gly Lys Glu	Tyr Leu Phe Arg Val	Arg Ala Glu Asn Arg	
8375	8380	8385	
ttt ggg cca ggt cca	cca tgt gtt tca aag	cca ctt gtg gct aaa	25332
Phe Gly Pro Gly Pro	Pro Cys Val Ser Lys	Pro Leu Val Ala Lys	
8390	8395	8400	
gat cca ttt gga cca	cct gat gca cca gat	aag ccc att gtg gaa	25377
Asp Pro Phe Gly Pro	Pro Asp Ala Pro Asp	Lys Pro Ile Val Glu	
8405	8410	8415	
gat gtt acc agc aac	agt atg cta gtg aaa	tgg aat gaa cca aaa	25422
Asp Val Thr Ser Asn	Ser Met Leu Val Lys	Trp Asn Glu Pro Lys	
8420	8425	8430	
gat aat gga agc ccc	att ttg ggt tac tgg	ctt gaa aaa cgt gaa	25467
Asp Asn Gly Ser Pro	Ile Leu Gly Tyr Trp	Leu Glu Lys Arg Glu	
8435	8440	8445	
gtt aac agt aca cat	tgg tct cgt gtc aac	aaa agc ctt ctg aat	25512
Val Asn Ser Thr His	Trp Ser Arg Val Asn	Lys Ser Leu Leu Asn	
8450	8455	8460	
gcc ttg aaa gcc aat	gta gat ggc tta tta	gaa gga ctc acc tat	25557
Ala Leu Lys Ala Asn	Val Asp Gly Leu Leu	Glu Gly Leu Thr Tyr	
8465	8470	8475	
gtc ttc aga gta tgt	gct gaa aat gca gct	gga cct gga aag ttc	25602
Val Phe Arg Val Cys	Ala Glu Asn Ala Ala	Gly Pro Gly Lys Phe	
8480	8485	8490	
agt cca cct tca gat	ccc aaa aca gca cat	gat cca atc tct cct	25647
Ser Pro Pro Ser Asp	Pro Lys Thr Ala His	Asp Pro Ile Ser Pro	
8495	8500	8505	
cct ggg cca cct atc	cca aga gtc act gac	aca agc tct aca act	25692
Pro Gly Pro Pro Ile	Pro Arg Val Thr Asp	Thr Ser Ser Thr Thr	
8510	8515	8520	
att gaa cta gaa tgg	gaa ccc cca gct ttc	aat ggt ggt ggg gaa	25737
Ile Glu Leu Glu Trp	Glu Pro Pro Ala Phe	Asn Gly Gly Glu	
8525	8530	8535	

att gtt ggc tat ttt	gtt gat aag cag ttg	gtt ggc aca aat aaa	25782
Ile Val Gly Tyr Phe	Val Asp Lys Gln Leu	Val Gly Thr Asn Lys	
8540	8545	8550	
tgg tca cgc tgc aca	gag aag atg atc aag	gtc cgt cag tac acc	25827
Trp Ser Arg Cys Thr	Glu Lys Met Ile Lys	Val Arg Gln Tyr Thr	
8555	8560	8565	
gtc aaa gaa atc cga	gag ggt gct gat tac	aaa ctt cgg gtg agt	25872
Val Lys Glu Ile Arg	Glu Gly Ala Asp Tyr	Lys Leu Arg Val Ser	
8570	8575	8580	
gct gtc aat gcc gca	ggg gaa gga ccg cct	gga gaa aca caa cct	25917
Ala Val Asn Ala Ala	Gly Glu Gly Pro Pro	Gly Glu Thr Gln Pro	
8585	8590	8595	
gtt act gtg gct gaa	cca caa gag cct cca	gct gtg gaa ctg gat	25962
Val Thr Val Ala Glu	Pro Gln Glu Pro Pro	Ala Val Glu Leu Asp	
8600	8605	8610	
gtt tct gtc aag ggt	gga ata caa ata atg	gct ggg aag act ctt	26007
Val Ser Val Lys Gly	Gly Ile Gln Ile Met	Ala Gly Lys Thr Leu	
8615	8620	8625	
aga att cca gct gtg	gtg act ggt cgc cct	gta cct aca aaa gta	26052
Arg Ile Pro Ala Val	Val Thr Gly Arg Pro	Val Pro Thr Lys Val	
8630	8635	8640	
tgg acc aaa gaa gaa	ggg gag ctg gat aaa	gac cgt gtt gta ata	26097
Trp Thr Lys Glu Glu	Gly Glu Leu Asp Lys	Asp Arg Val Val Ile	
8645	8650	8655	
gac aac gtt gga acc	aaa tct gaa cta att	atc aag gat gca ctg	26142
Asp Asn Val Gly Thr	Lys Ser Glu Leu Ile	Ile Lys Asp Ala Leu	
8660	8665	8670	
cga aaa gac cat ggc	aga tat gtg att aca	gct aca aat agc tgt	26187
Arg Lys Asp His Gly	Arg Tyr Val Ile Thr	Ala Thr Asn Ser Cys	
8675	8680	8685	
ggg tcc aaa ttt gca	gca gcc agg gta gaa	gtt ttt gat gtc cct	26232
Gly Ser Lys Phe Ala	Ala Ala Arg Val Glu	Val Phe Asp Val Pro	
8690	8695	8700	
ggg cca gtt ctt gac	tta aaa cct gtt gta	aca aac aga aaa atg	26277
Gly Pro Val Leu Asp	Leu Lys Pro Val Val	Thr Asn Arg Lys Met	
8705	8710	8715	
tgt cta ctt aac tgg	tct gat cca gaa gat	gat gga gga agt gaa	26322
Cys Leu Leu Asn Trp	Ser Asp Pro Glu Asp	Asp Gly Gly Ser Glu	
8720	8725	8730	
ata aca ggc ttt atc	att gaa aga aaa gat	gcc aag atg cat act	26367
Ile Thr Gly Phe Ile	Ile Glu Arg Lys Asp	Ala Lys Met His Thr	
8735	8740	8745	
tgg aga caa cca ata	gag act gag aga tct	aaa tgt gac atc aca	26412
Trp Arg Gln Pro Ile	Glu Thr Glu Arg Ser	Lys Cys Asp Ile Thr	

8750	8755	8760	
ggt ctg ctt gag gga Gly Leu Leu Glu Gly 8765	caa gaa tat aag ttc Gln Glu Tyr Lys Phe 8770	cgt gtt att gcc aag Arg Val Ile Ala Lys 8775	26457
aac aag ttt ggc tgt Asn Lys Phe Gly Cys 8780	ggc cct cct gtt gaa Gly Pro Pro Val Glu 8785	ata gga cca att ctt Ile Gly Pro Ile Leu 8790	26502
gca gtt gat cca cta Ala Val Asp Pro Leu 8795	ggt cct cca aca tct Gly Pro Pro Thr Ser 8800	cca gag agg ctc aca Pro Glu Arg Leu Thr 8805	26547
tac act gaa aga caa Tyr Thr Glu Arg Gln 8810	agg tcc act atc aca Arg Ser Thr Ile Thr 8815	ctt gac tgg aaa gag Leu Asp Trp Lys Glu 8820	26592
ccc cgc agt aat ggt Pro Arg Ser Asn Gly 8825	ggc agt ccc atc caa Gly Ser Pro Ile Gln 8830	gga tat atc att gaa Gly Tyr Ile Ile Glu 8835	26637
aaa cg ^g cgt cat gac Lys Arg Arg His Asp 8840	aaa cct gac ttt gaa Lys Pro Asp Phe Glu 8845	aga gtt aac aag cga Arg Val Asn Lys Arg 8850	26682
ctc tgc cca acc aca Leu Cys Pro Thr Thr 8855	tct ttt ctg gtt gaa Ser Phe Leu Val Glu 8860	aat ctt gat gaa cac Asn Leu Asp Glu His 8865	26727
caa atg tat gag ttc Gln Met Tyr Glu Phe 8870	cgt gtc aaa gct gtc Arg Val Lys Ala Val 8875	aat gaa att ggt gaa Asn Glu Ile Gly Glu 8880	26772
agt gaa cca tcc cta Ser Glu Pro Ser Leu 8885	cct ctt aat gta gtc Pro Leu Asn Val Val 8890	ata caa gat gat gaa Ile Gln Asp Asp Glu 8895	26817
gtg cct cca act att Val Pro Pro Thr Ile 8900	aag ttg cgt ctg agt Lys Leu Arg Leu Ser 8905	gtt cga gga gac act Val Arg Gly Asp Thr 8910	26862
atc aaa gtt aag gca Ile Lys Val Lys Ala 8915	gga gag cct gtc cac Gly Glu Pro Val His 8920	atc cct gca gat gtg Ile Pro Ala Asp Val 8925	26907
aca ggc ctt cca atg Thr Gly Leu Pro Met 8930	cct aag att gaa tgg Pro Lys Ile Glu Trp 8935	tcc aaa aat gaa act Ser Lys Asn Glu Thr 8940	26952
gta att gaa aaa ccc Val Ile Glu Lys Pro 8945	act gat gca ctt cag Thr Asp Ala Leu Gln 8950	ata acc aag gaa gag Ile Thr Lys Glu Glu 8955	26997
gta tcc cga agt gag Val Ser Arg Ser Glu 8960	gca aaa act gag ctt Ala Lys Thr Glu Leu 8965	agc att ccc aaa gcg Ser Ile Pro Lys Ala 8970	27042

gtc cg gac gac aaa	ggc act tac aca gtt	act gct tcc aat cgc	27087
Val Arg Glu Asp Lys	Gly Thr Tyr Thr Val	Thr Ala Ser Asn Arg	
8975	8980	8985	
ctt ggc tca gtg ttc	cga aat gtt cac gtt	gaa gta tat gac cgc	27132
Leu Gly Ser Val Phe	Arg Asn Val His Val	Glu Val Tyr Asp Arg	
8990	8995	9000	
cca tcc cca cca aga	aat ctt gct gtt act	gac att aaa gct gaa	27177
Pro Ser Pro Pro Arg	Asn Leu Ala Val Thr	Asp Ile Lys Ala Glu	
9005	9010	9015	
tct tgc tac ttg aca	tgg gat gcc cct ctt	gat aat ggt ggc agt	27222
Ser Cys Tyr Leu Thr	Trp Asp Ala Pro Leu	Asp Asn Gly Gly Ser	
9020	9025	9030	
gaa atc acc cat tat	gtt att gac aaa cgt	gat gca agt agg aag	27267
Glu Ile Thr His Tyr	Val Ile Asp Lys Arg	Asp Ala Ser Arg Lys	
9035	9040	9045	
aaa gca gaa tgg gag	gaa gtc acc aac act	gct gta gag aaa aga	27312
Lys Ala Glu Trp Glu	Glu Val Thr Asn Thr	Ala Val Glu Lys Arg	
9050	9055	9060	
tat ggg atc tgg aaa	ctt atc ccc aat ggt	cag tat gag ttc cga	27357
Tyr Gly Ile Trp Lys	Leu Ile Pro Asn Gly	Gln Tyr Glu Phe Arg	
9065	9070	9075	
gtc agg gca gtg aat	aaa tat gga atc agt	gat gag tgc aaa tca	27402
Val Arg Ala Val Asn	Lys Tyr Gly Ile Ser	Asp Glu Cys Lys Ser	
9080	9085	9090	
gat aaa gta gtc att	caa gat cct tat cgc	ctt cct gga cct cca	27447
Asp Lys Val Val Ile	Gln Asp Pro Tyr Arg	Leu Pro Gly Pro Pro	
9095	9100	9105	
gga aaa cca aaa gtt	ttg gca cgc acc aaa	gga tca atg cta gtg	27492
Gly Lys Pro Lys Val	Leu Ala Arg Thr Lys	Gly Ser Met Leu Val	
9110	9115	9120	
agc tgg act cct cct	ttg gac aat ggt ggc	tct cca att act ggc	27537
Ser Trp Thr Pro Pro	Leu Asp Asn Gly Gly	Ser Pro Ile Thr Gly	
9125	9130	9135	
tac tgg ctg gag aaa	aga gaa gag gga agt	cct tat tgg tca cgt	27582
Tyr Trp Leu Glu Lys	Arg Glu Glu Gly Ser	Pro Tyr Trp Ser Arg	
9140	9145	9150	
gtt agc cga gca cca	ata acc aaa gtg gga	ttg aaa ggc gtg gaa	27627
Val Ser Arg Ala Pro	Ile Thr Lys Val Gly	Leu Lys Gly Val Glu	
9155	9160	9165	
ttt aat gtt cct cgt	ttg ctt gaa ggc gtt	aaa tac cag ttc aga	27672
Phe Asn Val Pro Arg	Leu Leu Glu Gly Val	Lys Tyr Gln Phe Arg	
9170	9175	9180	
gcc atg gca ata aat	gct gca gga att ggt	cct ccc agt gaa cca	27717
Ala Met Ala Ile Asn	Ala Ala Gly Ile Gly	Pro Pro Ser Glu Pro	

9185	9190	9195	
tca gat cca gag gtt	gca gga gat ccc ata	ttt cca ccg ggg cca	27762
Ser Asp Pro Glu Val	Ala Gly Asp Pro Ile	Phe Pro Pro Gly Pro	
9200	9205	9210	
cct tct tgc cca gaa	gtt aaa gat aaa acg	aag tca agc atc tca	27807
Pro Ser Cys Pro Glu	Val Lys Asp Lys Thr	Lys Ser Ser Ile Ser	
9215	9220	9225	
cta gga tgg aaa cct	cca gcc aaa gat ggt	ggc agc cca atc aaa	27852
Leu Gly Trp Lys Pro	Pro Ala Lys Asp Gly	Gly Ser Pro Ile Lys	
9230	9235	9240	
gga tac att gta gaa	atg caa gaa gaa ggt	act act gac tgg aaa	27897
Gly Tyr Ile Val Glu	Met Gln Glu Glu Gly	Thr Thr Asp Trp Lys	
9245	9250	9255	
aga gta aat gaa cca	gac aaa ctt ata act	acc tgt gaa tgt gtg	27942
Arg Val Asn Glu Pro	Asp Lys Leu Ile Thr	Thr Cys Glu Cys Val	
9260	9265	9270	
gtg cct aat ctg aaa	gag ctc agg aag tac	aga ttc aga gtg aaa	27987
Val Pro Asn Leu Lys	Glu Leu Arg Lys Tyr	Arg Phe Arg Val Lys	
9275	9280	9285	
gct gtc aat gaa gct	ggt gaa tct gaa cca	agt gat aca act ggg	28032
Ala Val Asn Glu Ala	Gly Glu Ser Glu Pro	Ser Asp Thr Thr Gly	
9290	9295	9300	
gag atc cct gcc act	gat att caa gag gaa	cca gaa gtt ttc att	28077
Glu Ile Pro Ala Thr	Asp Ile Gln Glu Glu	Pro Glu Val Phe Ile	
9305	9310	9315	
gac att gga gca cag	gac tgt ctg gtt tgt	aaa gct ggc tca cag	28122
Asp Ile Gly Ala Gln	Asp Cys Leu Val Cys	Lys Ala Gly Ser Gln	
9320	9325	9330	
att agg att cct gct	gtc atc aag gga cgc	cca aca cca aaa tca	28167
Ile Arg Ile Pro Ala	Val Ile Lys Gly Arg	Pro Thr Pro Lys Ser	
9335	9340	9345	
tct tgg gaa ttt gat	gga aag gca aag aaa	gca atg aag gat gga	28212
Ser Trp Glu Phe Asp	Gly Lys Ala Lys Lys	Ala Met Lys Asp Gly	
9350	9355	9360	
gtt cat gac ata ccc	gaa gat gca cag ctg	gag act gct gaa aac	28257
Val His Asp Ile Pro	Glu Asp Ala Gln Leu	Glu Thr Ala Glu Asn	
9365	9370	9375	
tcc tca gta att att	att ccg gag tgt aaa	cga tct cat aca ggc	28302
Ser Ser Val Ile Ile	Ile Pro Glu Cys Lys	Arg Ser His Thr Gly	
9380	9385	9390	
aaa tac agc atc aca	gcc aag aat aaa gca	gga caa aag act gca	28347
Lys Tyr Ser Ile Thr	Ala Lys Asn Lys Ala	Gly Gln Lys Thr Ala	
9395	9400	9405	

aat tgc aga gtt aaa	gtc atg gat gta cca	ggc cca ccc aaa gat	28392
Asn Cys Arg Val Lys	Val Met Asp Val Pro	Gly Pro Pro Lys Asp	
9410	9415	9420	
ctg aaa gtc agt gat	atc aca agg ggt agt	tgc aga ctt tca tgg	28437
Leu Lys Val Ser Asp	Ile Thr Arg Gly Ser	Cys Arg Leu Ser Trp	
9425	9430	9435	
aag atg cca gac gac	gat gga gga gac agg	atc aaa ggc tat gtt	28482
Lys Met Pro Asp Asp	Asp Gly Gly Asp Arg	Ile Lys Gly Tyr Val	
9440	9445	9450	
att gag aag agg act	att gat gga aaa gcc	tgg acc aaa gtc aat	28527
Ile Glu Lys Arg Thr	Ile Asp Gly Lys Ala	Trp Thr Lys Val Asn	
9455	9460	9465	
cca gac tgt gga agc	acc aca ttt gta gtg	cct gat ctc ctc tct	28572
Pro Asp Cys Gly Ser	Thr Thr Phe Val Val	Pro Asp Leu Leu Ser	
9470	9475	9480	
gaa cag caa tat ttc	ttc cgt gtg cga gca	gaa aac cgt ttt ggt	28617
Glu Gln Gln Tyr Phe	Phe Arg Val Arg Ala	Glu Asn Arg Phe Gly	
9485	9490	9495	
att ggc cca cct gtg	gaa acc att cag agg	acc act gcc aga gat	28662
Ile Gly Pro Pro Val	Glu Thr Ile Gln Arg	Thr Thr Ala Arg Asp	
9500	9505	9510	
ccg ata tat cct cct	gat cct cct att aaa	ctc aag att ggc ctc	28707
Pro Ile Tyr Pro Pro	Asp Pro Pro Ile Lys	Leu Lys Ile Gly Leu	
9515	9520	9525	
atc aca aag aac aca	gtg cat ctg tca tgg	aaa ccc ccg aag aat	28752
Ile Thr Lys Asn Thr	Val His Leu Ser Trp	Lys Pro Pro Lys Asn	
9530	9535	9540	
gat ggg ggc tcc cct	gtt acc cac tat att	gtt gag tgc ctt gca	28797
Asp Gly Gly Ser Pro	Val Thr His Tyr Ile	Val Glu Cys Leu Ala	
9545	9550	9555	
tgg gac cct act ggg	aca aag aaa gaa gcc	tgg agg cag tgc aat	28842
Trp Asp Pro Thr Gly	Thr Lys Lys Glu Ala	Trp Arg Gln Cys Asn	
9560	9565	9570	
aag cgt gat gtg gaa	gaa ctg caa ttt act	gtt gaa gac cta gta	28887
Lys Arg Asp Val Glu	Glu Leu Gln Phe Thr	Val Glu Asp Leu Val	
9575	9580	9585	
gaa ggt ggg gaa tat	gaa ttc cga gtc aaa	gct gtc aat gct gca	28932
Glu Gly Glu Tyr Glu	Glu Phe Arg Val Lys	Ala Val Asn Ala Ala	
9590	9595	9600	
gga gtc agc aag cct	tca gcc act gtt ggc	ccc tgt gac tgt caa	28977
Gly Val Ser Lys Pro	Ser Ala Thr Val Gly	Pro Cys Asp Cys Gln	
9605	9610	9615	
aga cca gac atg cca	cca tca att gat cta	aaa gaa ttc atg gag	29022
Arg Pro Asp Met Pro	Pro Ser Ile Asp Leu	Lys Glu Phe Met Glu	

9620	9625	9630	
gtt gaa gaa gga acc Val Glu Glu Gly Thr 9635	aat gtt aac att gtg Asn Val Asn Ile Val 9640	gcc aaa att aaa ggt Ala Lys Ile Lys Gly 9645	29067
gtg cca ttc ccg aca Val Pro Phe Pro Thr 9650	ctt acc tgg ttt aaa Leu Thr Trp Phe Lys 9655	gct cct cca aag aag Ala Pro Pro Lys Lys 9660	29112
cct gat aac aaa gaa Pro Asp Asn Lys Glu 9665	cct gtt ctc tat gac Pro Val Leu Tyr Asp 9670	acc cat gtc aac aaa Thr His Val Asn Lys 9675	29157
ctg gtg gta gat gat Leu Val Val Asp Asp 9680	act tgc act tta gtt Thr Cys Thr Leu Val 9685	att ccg cag tct cgc Ile Pro Gln Ser Arg 9690	29202
agg agt gac act ggc Arg Ser Asp Thr Gly 9695	tta tat acc atc aca Leu Tyr Thr Ile Thr 9700	gct gta aat aat ctg Ala Val Asn Asn Leu 9705	29247
gga aca gca tca aag Gly Thr Ala Ser Lys 9710	gag atg aga ctg aat Glu Met Arg Leu Asn 9715	gtc ctg ggt cgt cct Val Leu Gly Arg Pro 9720	29292
ggc cct cca gtg gga Gly Pro Pro Val Gly 9725	ccc ata aaa ttt gaa Pro Ile Lys Phe Glu 9730	tct gtt tca gca gat Ser Val Ser Ala Asp 9735	29337
caa atg aca cta tct Gln Met Thr Leu Ser 9740	tgg ttt cca cct aaa Trp Phe Pro Pro Lys 9745	gat gat ggt ggg tct Asp Asp Gly Gly Ser 9750	29382
aag att aca aac tat Lys Ile Thr Asn Tyr 9755	gta att gag aaa aga Val Ile Glu Lys Arg 9760	gaa gct aac agg aag Glu Ala Asn Arg Lys 9765	29427
aca tgg gtc cat gtc Thr Trp Val His Val 9770	tcc agt gaa cct aag Ser Ser Glu Pro Lys 9775	gag tgc acg tac acg Glu Cys Thr Tyr Thr 9780	29472
att ccc aaa ttg cta Ile Pro Lys Leu Leu 9785	gaa ggc cat gaa tat Glu Gly His Glu Tyr 9790	gta ttc cga atc atg Val Phe Arg Ile Met 9795	29517
gcc cag aat aaa tat Ala Gln Asn Lys Tyr 9800	ggc att gga gaa cct Gly Ile Gly Glu Pro 9805	ctt gac agt gaa cct Leu Asp Ser Glu Pro 9810	29562
gaa aca gca aga aac Glu Thr Ala Arg Asn 9815	ctc ttc tct gtc cct Leu Phe Ser Val Pro 9820	gga gca cca gat aaa Gly Ala Pro Asp Lys 9825	29607
cca aca gtt agc agc Pro Thr Val Ser Ser 9830	gtg act cgt aac tcc Val Thr Arg Asn Ser 9835	atg act gtc aac tgg Met Thr Val Asn Trp 9840	29652

gaa gag cca gaa tat	gat gga ggc tct cct	gtg aca ggg tac tgg	29697
Glu Glu Pro Glu Tyr	Asp Gly Gly Ser Pro	Val Thr Gly Tyr Trp	
9845	9850	9855	
ctg gaa atg aaa gac	acc act tca aag aga	tgg aag aga gtt aac	29742
Leu Glu Met Lys Asp	Thr Thr Ser Lys Arg	Trp Lys Arg Val Asn	
9860	9865	9870	
cga gat cct atc aaa	gcc atg act ttg ggt	gtt tct tat aaa gtg	29787
Arg Asp Pro Ile Lys	Ala Met Thr Leu Gly	Val Ser Tyr Lys Val	
9875	9880	9885	
act ggt ctt att gaa	ggt tcc gac tat caa	ttc cgg gta tat gca	29832
Thr Gly Leu Ile Glu	Gly Ser Asp Tyr Gln	Phe Arg Val Tyr Ala	
9890	9895	9900	
atc aat gct gct ggc	gtg ggt cca gca agt	ctg cca tca gac cca	29877
Ile Asn Ala Ala Gly	Val Gly Pro Ala Ser	Leu Pro Ser Asp Pro	
9905	9910	9915	
gcg act gct aga gat	cca att gcc cct cct	ggt cct cca ttt ccc	29922
Ala Thr Ala Arg Asp	Pro Ile Ala Pro Pro	Gly Pro Pro Phe Pro	
9920	9925	9930	
aaa gtg aca gat tgg	act aaa tca tct gca	gat ctg gag tgg tct	29967
Lys Val Thr Asp Trp	Thr Lys Ser Ser Ala	Asp Leu Glu Trp Ser	
9935	9940	9945	
ccc cca cta aaa gat	ggt gga tcc aaa gta	act gga tac atc gtt	30012
Pro Pro Leu Lys Asp	Gly Gly Ser Lys Val	Thr Gly Tyr Ile Val	
9950	9955	9960	
gaa tat aaa gaa gaa	gga aaa gaa gaa tgg	gaa aag ggt aaa gat	30057
Glu Tyr Lys Glu Glu	Gly Lys Glu Glu Trp	Glu Lys Gly Lys Asp	
9965	9970	9975	
aaa gaa gtg aga gga	aca aag ctc gtt gtg	aca gga tta aag gaa	30102
Lys Glu Val Arg Gly	Thr Lys Leu Val Val	Thr Gly Leu Lys Glu	
9980	9985	9990	
gga gca ttc tac aaa	ttt aga gtt agt gca	gtc aac att gct ggc	30147
Gly Ala Phe Tyr Lys	Phe Arg Val Ser Ala	Val Asn Ile Ala Gly	
9995	10000	10005	
att gga gaa cct gga	gag gtc aca gat gtc	att gaa atg aag gac	30192
Ile Gly Glu Pro Gly	Glu Val Thr Asp Val	Ile Glu Met Lys Asp	
10010	10015	10020	
aga ctt gtt tca cct	gac ctt cag cta gat	gcc agt gtc aga gat	30237
Arg Leu Val Ser Pro	Asp Leu Gln Leu Asp	Ala Ser Val Arg Asp	
10025	10030	10035	
aga att gtt gtc cat	gct gga ggg gtg atc	cga atc att gcc tat	30282
Arg Ile Val Val His	Ala Gly Gly Val Ile	Arg Ile Ile Ala Tyr	
10040	10045	10050	
gtg tct gga aag cct	cct cca acc gtc acc	tgg aac atg aat gaa	30327
Val Ser Gly Lys Pro	Pro Pro Thr Val Thr	Trp Asn Met Asn Glu	

10055	10060	10065	
aga acc tta cct caa Arg Thr Leu Pro Gln 10070	gaa gcc acc att gag Glu Ala Thr Ile Glu 10075	acc aca gcc att agc Thr Thr Ala Ile Ser 10080	30372
tca tcc atg gtc atc Ser Ser Met Val Ile 10085	aag aac tgc cag agg Lys Asn Cys Gln Arg 10090	agc cat caa ggc gtc Ser His Gln Gly Val 10095	30417
tat tct ctt ctt gcc Tyr Ser Leu Leu Ala 10100	aaa aat gaa gcc gga Lys Asn Glu Ala Gly 10105	gaa aga aag aag aca Glu Arg Lys Lys Thr 10110	30462
att att gtt gat gta Ile Ile Val Asp Val 10115	tta gat gtt cca ggt Leu Asp Val Pro Gly 10120	ccc gtt gga aca cca Pro Val Gly Thr Pro 10125	30507
ttc cta gct cac aac Phe Leu Ala His Asn 10130	cta acc aat gag tcc Leu Thr Asn Glu Ser 10135	tgc aaa ctg aca tgg Cys Lys Leu Thr Trp 10140	30552
ttt tct cca gaa gat Phe Ser Pro Glu Asp 10145	gat gga ggc tct cca Asp Gly Gly Ser Pro 10150	atc acc aat tat gtc Ile Thr Asn Tyr Val 10155	30597
att gaa aag cgt gaa Ile Glu Lys Arg Glu 10160	tct gac cgc aga gca Ser Asp Arg Arg Ala 10165	tgg acc cca gtg aca Trp Thr Pro Val Thr 10170	30642
tat aca gtt acc cga Tyr Thr Val Thr Arg 10175	caa aat gct act gtc Gln Asn Ala Thr Val 10180	cag ggt ctc att caa Gln Gly Leu Ile Gln 10185	30687
gga aaa gcc tac ttt Gly Lys Ala Tyr Phe 10190	ttc cga att gcg gct Phe Arg Ile Ala Ala 10195	gaa aat agt att ggc Glu Asn Ser Ile Gly 10200	30732
atg ggt cca ttt gtt Met Gly Pro Phe Val 10205	gag aca tca gag gca Glu Thr Ser Glu Ala 10210	ctt gtt atc aga gag Leu Val Ile Arg Glu 10215	30777
cca ata act gta cca Pro Ile Thr Val Pro 10220	gag cgt cct gaa gac Glu Arg Pro Glu Asp 10225	ctg gaa gtc aaa gaa Leu Glu Val Lys Glu 10230	30822
gtt act aaa aat act Val Thr Lys Asn Thr 10235	gta act ttg act tgg Val Thr Leu Thr Trp 10240	aat cct cct aag tat Asn Pro Pro Lys Tyr 10245	30867
gat ggt ggg tca gaa Asp Gly Gly Ser Glu 10250	att att aac tat gtc Ile Ile Asn Tyr Val 10255	cta gaa agt cggt ctc Leu Glu Ser Arg Leu 10260	30912
att ggg act gag aag Ile Gly Thr Glu Lys 10265	ttc cac aaa gtt aca Phe His Lys Val Thr 10270	aat gac aac ttg ctt Asn Asp Asn Leu Leu 10275	30957

agc aga aaa tac act	gtt aaa ggc tta aaa	gaa ggt gat acc tat	31002
Ser Arg Lys Tyr Thr	Val Lys Gly Leu Lys	Glu Gly Asp Thr Tyr	
10280	10285	10290	
gag tac cgt gtc agt	gct gtc aac att gtt	gga caa ggc aaa cca	31047
Glu Tyr Arg Val Ser	Ala Val Asn Ile Val	Gly Gln Gly Lys Pro	
10295	10300	10305	
tca ttt tgc acc aaa	cca att act tgc aag	gat gag ctg gca ccc	31092
Ser Phe Cys Thr Lys	Pro Ile Thr Cys Lys	Asp Glu Leu Ala Pro	
10310	10315	10320	
cca acg ctt cac ctc	gac ttc aga gat aag	ctc acg att cga gtt	31137
Pro Thr Leu His Leu	Asp Phe Arg Asp Lys	Leu Thr Ile Arg Val	
10325	10330	10335	
ggg gaa gct ttt gcc	ctc act ggc cgt tac	tca ggc aaa cca aag	31182
Gly Glu Ala Phe Ala	Leu Thr Gly Arg Tyr	Ser Gly Lys Pro Lys	
10340	10345	10350	
cct aag gtt tcc tgg	ttc aaa gat gaa gct	gat gtg ctg gaa gat	31227
Pro Lys Val Ser Trp	Phe Lys Asp Glu Ala	Asp Val Leu Glu Asp	
10355	10360	10365	
gat cgc act cat ata	aag act aca cca gca	aca ctt gct tta gag	31272
Asp Arg Thr His Ile	Lys Thr Thr Pro Ala	Thr Leu Ala Leu Glu	
10370	10375	10380	
aag atc aag gcc aaa	cgt tca gat tcc ggc	aaa tac tgt gtg gtt	31317
Lys Ile Lys Ala Lys	Arg Ser Asp Ser Gly	Lys Tyr Cys Val Val	
10385	10390	10395	
gtg gag aac agt aca	ggc tct agg aaa ggt	ttc tgt caa gtt aat	31362
Val Glu Asn Ser Thr	Gly Ser Arg Lys Gly	Phe Cys Gln Val Asn	
10400	10405	10410	
gtt gtt gac cat cct	gga cca cca gta gga	cca gtt agt ttt gat	31407
Val Val Asp His Pro	Gly Pro Pro Val Gly	Pro Val Ser Phe Asp	
10415	10420	10425	
gag gtg acc aaa gat	tac atg gtt atc tct	tgg aag cct cct tta	31452
Glu Val Thr Lys Asp	Tyr Met Val Ile Ser	Trp Lys Pro Pro Leu	
10430	10435	10440	
gat gat gga ggc agt	aaa atc acc aat tat	att att gag aag aag	31497
Asp Asp Gly Gly Ser	Lys Ile Thr Asn Tyr	Ile Ile Glu Lys Lys	
10445	10450	10455	
gaa gtg ggt aaa gac	gtc tgg atg cca gtg	aca tct gca agt gct	31542
Glu Val Gly Lys Asp	Val Trp Met Pro Val	Thr Ser Ala Ser Ala	
10460	10465	10470	
aaa aca aca tgc aaa	gtt tct aaa cta ctt	gaa gga aaa gat tat	31587
Lys Thr Thr Cys Lys	Val Ser Lys Leu Leu	Glu Gly Lys Asp Tyr	
10475	10480	10485	
att ttc cgg ata cat	gct gaa aat ctg tat	gga ata agt gat cct	31632
Ile Phe Arg Ile His	Ala Glu Asn Leu Tyr	Gly Ile Ser Asp Pro	

10490	10495	10500	
ctg gtg tct gat tca Leu Val Ser Asp Ser 10505	atg aaa gcc aaa gat Met Lys Ala Lys Asp 10510	cgt ttc agg gtt cct Arg Phe Arg Val Pro 10515	31677
gat gca cct gat cag Asp Ala Pro Asp Gln 10520	cca att gtt aca gaa Pro Ile Val Thr Glu 10525	gtt acc aaa gac tct Val Thr Lys Asp Ser 10530	31722
gca tta gta acc tgg Ala Leu Val Thr Trp 10535	aat aag cca cat gat Asn Lys Pro His Asp 10540	gga gga aaa ccc atc Gly Gly Lys Pro Ile 10545	31767
aca aac tac atc ctg Thr Asn Tyr Ile Leu 10550	gaa aag aga gaa act Glu Lys Arg Glu Thr 10555	atg tct aaa cga tgg Met Ser Lys Arg Trp 10560	31812
gct aga gtt acc aaa Ala Arg Val Thr Lys 10565	gat cct att cat cca Asp Pro Ile His Pro 10570	tac act aaa ttt agg Tyr Thr Lys Phe Arg 10575	31857
gtt cct gat ctt cta Val Pro Asp Leu Leu 10580	gaa gga tgt cag tat Glu Gly Cys Gln Tyr 10585	gaa ttc cgg gtt tct Glu Phe Arg Val Ser 10590	31902
gca gaa aat gaa att Ala Glu Asn Glu Ile 10595	ggt att gga gat cca Gly Ile Gly Asp Pro 10600	agc cca cca tcc aaa Ser Pro Pro Ser Lys 10605	31947
cca gtc ttt gct aaa Pro Val Phe Ala Lys 10610	gat cca att gct aaa Asp Pro Ile Ala Lys 10615	cca agt cca cct gtt Pro Ser Pro Pro Val 10620	31992
aat cct gaa gca ata Asn Pro Glu Ala Ile 10625	gat aca aca tgc aat Asp Thr Thr Cys Asn 10630	tca gtc gat cta act Ser Val Asp Leu Thr 10635	32037
tgg cag cca cca cgt Trp Gln Pro Pro Arg 10640	cat gat ggt ggg agc His Asp Gly Gly Ser 10645	aag att ctg ggt tat Lys Ile Leu Gly Tyr 10650	32082
att gtt gag tac cag Ile Val Glu Tyr Gln 10655	aaa gtt gga gat gaa Lys Val Gly Asp Glu 10660	gag tgg aga aga gcc Glu Trp Arg Arg Ala 10665	32127
aat cac acc cct gag Asn His Thr Pro Glu 10670	tca tgt cct gaa act Ser Cys Pro Glu Thr 10675	aaa tat aaa gtc acc Lys Tyr Lys Val Thr 10680	32172
ggt ctt cgg gac ggt Gly Leu Arg Asp Gly 10685	caa acc tat aag ttt Gln Thr Tyr Lys Phe 10690	aga gtg tta gca gtc Arg Val Leu Ala Val 10695	32217
aat gca gct ggt gaa Asn Ala Ala Gly Glu 10700	tca gat cca gct cat Ser Asp Pro Ala His 10705	gtt ccg gag cca gtc Val Pro Glu Pro Val 10710	32262

ctt gta aaa gac agg	ctt gaa ccc cct gag	ttg att ctt gat gcc	32307
Leu Val Lys Asp Arg	Leu Glu Pro Pro Glu	Leu Ile Leu Asp Ala	
10715	10720	10725	
aac atg gca aga gaa	caa cac att aaa gtt	ggt gat act cta aga	32352
Asn Met Ala Arg Glu	Gln His Ile Lys Val	Gly Asp Thr Leu Arg	
10730	10735	10740	
ctt agt gcc atc atc	aaa gga gtg cca ttc	cca aaa gta act tgg	32397
Leu Ser Ala Ile Ile	Lys Gly Val Pro Phe	Pro Lys Val Thr Trp	
10745	10750	10755	
aaa aaa gaa gac aga	gat gct cca act aaa	gca aga att gat gtg	32442
Lys Lys Glu Asp Arg	Asp Ala Pro Thr Lys	Ala Arg Ile Asp Val	
10760	10765	10770	
act cca gtt ggt agc	aag ctt gaa att cgt	aat gct gcc cat gaa	32487
Thr Pro Val Gly Ser	Lys Leu Glu Ile Arg	Asn Ala Ala His Glu	
10775	10780	10785	
gat ggt gga att tat	tct tta aca gtg gag	aat cca gct ggt tca	32532
Asp Gly Gly Ile Tyr	Ser Leu Thr Val Glu	Asn Pro Ala Gly Ser	
10790	10795	10800	
aaa act gtc tca gta	aaa gta ctt gta tta	gat aaa cct ggg cca	32577
Lys Thr Val Ser Val	Lys Val Leu Val Leu	Asp Lys Pro Gly Pro	
10805	10810	10815	
cct aga gat ctg gaa	gtc agt gaa att agg	aaa gat tca tgt tac	32622
Pro Arg Asp Leu Glu	Val Ser Glu Ile Arg	Lys Asp Ser Cys Tyr	
10820	10825	10830	
ctt act tgg aaa gaa	cca cta gat gat ggt	ggt tct gtt att acc	32667
Leu Thr Trp Lys Glu	Pro Leu Asp Asp Gly	Gly Ser Val Ile Thr	
10835	10840	10845	
aat tat gtg gtt gag	agg aga gat gtt gcc	agc gcc cag tgg tca	32712
Asn Tyr Val Val Glu	Arg Arg Asp Val Ala	Ser Ala Gln Trp Ser	
10850	10855	10860	
cct ctc tca gct aca	tca aag aaa aag agt	cac ttc gct aag cat	32757
Pro Leu Ser Ala Thr	Ser Lys Lys Ser	His Phe Ala Lys His	
10865	10870	10875	
ctg aat gaa ggc aac	cag tac ctc ttc cga	gta gct gcg gag aac	32802
Leu Asn Glu Gly Asn	Gln Tyr Leu Phe Arg	Val Ala Ala Glu Asn	
10880	10885	10890	
cag tat gga cgt ggt	cct ttt gtt gaa aca	cca aaa cca atc aag	32847
Gln Tyr Gly Arg Gly	Pro Phe Val Glu Thr	Pro Lys Pro Ile Lys	
10895	10900	10905	
gct ttg gat cct ctc	cat ccc cca ggg cca	ccc aag gac ctg cac	32892
Ala Leu Asp Pro Leu	His Pro Pro Gly Pro	Pro Lys Asp Leu His	
10910	10915	10920	
cat gta gat gtt gac	aag act gaa gtc tcc	cta gtc tgg aat aag	32937
His Val Asp Val Asp	Lys Thr Glu Val Ser	Leu Val Trp Asn Lys	

10925	10930	10935	
ccg gat cgt gat ggt Pro Asp Arg Asp Gly	ggt tct cca atc act Gly Ser Pro Ile Thr	gga tat ttg gta gaa Gly Tyr Leu Val Glu	32982
10940	10945	10950	
tat caa gaa gaa ggc Tyr Gln Glu Glu Gly	acc cag gac tgg att Thr Gln Asp Trp Ile	aaa ttt aag act gtg Lys Phe Lys Thr Val	33027
10955	10960	10965	
aca aac tta gag tgt Thr Asn Leu Glu Cys	gtg gtt act gga cta Val Val Thr Gly Leu	caa caa gga aag acc Gln Gln Gly Lys Thr	33072
10970	10975	10980	
tat aga ttc cgt gta Tyr Arg Phe Arg Val	aaa gct gaa aac att Lys Ala Glu Asn Ile	gtg ggt ctt ggt ctc Val Gly Leu Gly Leu	33117
10985	10990	10995	
cct gac aca act atc Pro Asp Thr Thr Ile	ccg ata gaa tgt caa Pro Ile Glu Cys Gln	gaa aaa cta gtg cct Glu Lys Leu Val Pro	33162
11000	11005	11010	
cca tcc gtg gag cta Pro Ser Val Glu Leu	gat gtg aaa tta att Asp Val Lys Leu Ile	gaa ggt ctt gtg gta Glu Gly Leu Val Val	33207
11015	11020	11025	
aag gct gga acc aca Lys Ala Gly Thr Thr	gtc aga ttc cct gct Val Arg Phe Pro Ala	att ata aga ggt gtg Ile Ile Arg Gly Val	33252
11030	11035	11040	
cct gtt cct act gca Pro Val Pro Thr Ala	aag tgg aca acc gat Lys Trp Thr Thr Asp	ggg agt gag att aaa Gly Ser Glu Ile Lys	33297
11045	11050	11055	
acc gat gag cac tac Thr Asp Glu His Tyr	aca gtt gaa aca gac Thr Val Glu Thr Asp	aac ttc tca tca gta Asn Phe Ser Ser Val	33342
11060	11065	11070	
ctt acc att aag aac Leu Thr Ile Lys Asn	tgc tta agg aga gac Cys Leu Arg Arg Asp	act ggg gaa tat caa Thr Gly Glu Tyr Gln	33387
11075	11080	11085	
atc aca gtt tcc aat Ile Thr Val Ser Asn	gca gcc ggt agc aaa Ala Ala Gly Ser Lys	aca gta gcc gta cat Thr Val Ala Val His	33432
11090	11095	11100	
ctt act gtt ctt gat Leu Thr Val Leu Asp	gtt cct ggg cca cca Val Pro Gly Pro Pro	aca ggt cct att aat Thr Gly Pro Ile Asn	33477
11105	11110	11115	
att ctg gat gtt act Ile Leu Asp Val Thr	cct gaa cac atg act Pro Glu His Met Thr	atc tca tgg cag cca Ile Ser Trp Gln Pro	33522
11120	11125	11130	
cct aag gat gat gga Pro Lys Asp Asp Gly	gga agc cct gtg ata Gly Ser Pro Val Ile	aat tat att gtt gag Asn Tyr Ile Val Glu	33567
11135	11140	11145	

aaa caa gat aca agg	aaa gac acg tgg ggt	gtt gtc tct tcc gga	33612
Lys Gln Asp Thr Arg	Lys Asp Thr Trp Gly	Val Val Ser Ser Gly	
11150	11155	11160	
agc agt aag aca aag	ctg aaa atc cca cat	ctg cag aag ggc tgt	33657
Ser Ser Lys Thr Lys	Leu Lys Ile Pro His	Leu Gln Lys Gly Cys	
11165	11170	11175	
gaa tat gtt ttc cga	gtt aga gca gag aat	aag ata ggt gtt ggt	33702
Glu Tyr Val Phe Arg	Val Arg Ala Glu Asn	Lys Ile Gly Val Gly	
11180	11185	11190	
cct ccc ctt gac tcc	aca cct act gtt gct	aag cat aaa ttt agt	33747
Pro Pro Leu Asp Ser	Thr Pro Thr Val Ala	Lys His Lys Phe Ser	
11195	11200	11205	
cct ccg tct cct cct	ggt aaa cca gtg gtt	act gac att act gaa	33792
Pro Pro Ser Pro Pro	Gly Lys Pro Val Val	Thr Asp Ile Thr Glu	
11210	11215	11220	
aat gca gca aca gtg	tct tgg acc ctg cca	aaa tct gat ggt ggc	33837
Asn Ala Ala Thr Val	Ser Trp Thr Leu Pro	Lys Ser Asp Gly Gly	
11225	11230	11235	
agt cca ata act ggc	tac tat atg gaa cgt	cga gaa gta act ggc	33882
Ser Pro Ile Thr Gly	Tyr Tyr Met Glu Arg	Arg Glu Val Thr Gly	
11240	11245	11250	
aaa tgg gtg agg gtc	aac aaa aca cct atc	gct gac ctg aag ttc	33927
Lys Trp Val Arg Val	Asn Lys Thr Pro Ile	Ala Asp Leu Lys Phe	
11255	11260	11265	
aga gtg act gga ctc	tat gaa gga aat aca	tat gag ttt aga gtt	33972
Arg Val Thr Gly Leu	Tyr Glu Gly Asn Thr	Tyr Glu Phe Arg Val	
11270	11275	11280	
ttt gct gaa aat ctt	gca gga cta agc aaa	cca tcc cca agt tct	34017
Phe Ala Glu Asn Leu	Ala Gly Leu Ser Lys	Pro Ser Pro Ser Ser	
11285	11290	11295	
gat cca ata aaa gct	tgc cgg ccc atc aaa	cca cct gga cca cct	34062
Asp Pro Ile Lys Ala	Cys Arg Pro Ile Lys	Pro Pro Gly Pro Pro	
11300	11305	11310	
att aat cct aaa ctg	aaa gac aag agc aga	gaa aca gct gat ttg	34107
Ile Asn Pro Lys Leu	Lys Asp Lys Ser Arg	Glu Thr Ala Asp Leu	
11315	11320	11325	
gtg tgg aca aag cct	ctc agt gat ggt ggt	agc ccc att cta gga	34152
Val Trp Thr Lys Pro	Leu Ser Asp Gly Gly	Ser Pro Ile Leu Gly	
11330	11335	11340	
tat gta gtg gaa tgt	cag aaa cct ggc acg	gca caa tgg aac agg	34197
Tyr Val Val Glu Cys	Gln Lys Pro Gly Thr	Ala Gln Trp Asn Arg	
11345	11350	11355	
att aat aaa gat gaa	ctc att agg caa tgt	gcc ttt agg gta cct	34242
Ile Asn Lys Asp Glu	Leu Ile Arg Gln Cys	Ala Phe Arg Val Pro	

11360	11365	11370	
gga cta att gaa gga Gly Leu Ile Glu Gly 11375	aat gag tac aga ttc Asn Glu Tyr Arg Phe 11380	cgt ata aag gca gct Arg Ile Lys Ala Ala 11385	34287
aat att gta gga gag Asn Ile Val Gly Glu 11390	ggt gag cca aga gaa Gly Glu Pro Arg Glu 11395	cta gca gaa tct gtg Leu Ala Glu Ser Val 11400	34332
att gca aaa gat atc Ile Ala Lys Asp Ile 11405	ctt cat cct cca gaa Leu His Pro Pro Glu 11410	gta gaa ctt gat gtt Val Glu Leu Asp Val 11415	34377
act tgt cgt gat gtt Thr Cys Arg Asp Val 11420	att acc gtg aga gta Ile Thr Val Arg Val 11425	ggc caa act atc cgc Gly Gln Thr Ile Arg 11430	34422
att cta gct cga gtc Ile Leu Ala Arg Val 11435	aaa ggc aga cct gaa Lys Gly Arg Pro Glu 11440	cca gac ata act tgg Pro Asp Ile Thr Trp 11445	34467
act aag gaa ggc aaa Thr Lys Glu Gly Lys 11450	gta ttg gtc cga gaa Val Leu Val Arg Glu 11455	aag agg gtg gac ctt Lys Arg Val Asp Leu 11460	34512
att cag gat cta cct Ile Gln Asp Leu Pro 11465	cgt gtt gag tta caa Arg Val Glu Leu Gln 11470	att aaa gaa gct gtt Ile Lys Glu Ala Val 11475	34557
aga gct gat cat ggc Arg Ala Asp His Gly 11480	aag tat atc atc tca Lys Tyr Ile Ile Ser 11485	gct aag aac agc agt Ala Lys Asn Ser Ser 11490	34602
gga cat gcc caa ggt Gly His Ala Gln Gly 11495	tca gcc atc gtt aac Ser Ala Ile Val Asn 11500	gtc ctt gac aga cct Val Leu Asp Arg Pro 11505	34647
ggg cct tgc cag aat Gly Pro Cys Gln Asn 11510	ttg aag gtt acc aat Leu Lys Val Thr Asn 11515	gta acc aaa gag aac Val Thr Lys Glu Asn 11520	34692
tgt aca att tct tgg Cys Thr Ile Ser Trp 11525	gaa aac cca cta gat Glu Asn Pro Leu Asp 11530	aat ggt ggc tca gaa Asn Gly Gly Ser Glu 11535	34737
ata aca aac ttc ata Ile Thr Asn Phe Ile 11540	gta gaa tat cgc aaa Val Glu Tyr Arg Lys 11545	cca aac cag aaa ggc Pro Asn Gln Lys Gly 11550	34782
tgg tca att gtt gca Trp Ser Ile Val Ala 11555	tca gat gtc act aaa Ser Asp Val Thr Lys 11560	cga tta atc aag gcc Arg Leu Ile Lys Ala 11565	34827
aac ctt tta gcc aac Asn Leu Leu Ala Asn 11570	aat gaa tac tat ttc Asn Glu Tyr Tyr Phe 11575	cga gtt tgt gca gag Arg Val Cys Ala Glu 11580	34872

aat aaa gta ggt gtt	ggg cca acc atc gaa	aca aaa act ccc att	34917
Asn Lys Val Gly Val	Gly Pro Thr Ile Glu	Thr Lys Thr Pro Ile	
11585	11590	11595	
ctg gct att aac cct	att gac aga cca ggt	gag cct gaa aac ctt	34962
Leu Ala Ile Asn Pro	Ile Asp Arg Pro Gly	Glu Pro Glu Asn Leu	
11600	11605	11610	
cac att gca gat aaa	gga aag aca ttt gtc	tac cta aag tgg cg	35007
His Ile Ala Asp Lys	Gly Lys Thr Phe Val	Tyr Leu Lys Trp Arg	
11615	11620	11625	
agg cct gac tat gat	ggt ggc agt cca aat	ctg tca tat cat gtt	35052
Arg Pro Asp Tyr Asp	Gly Gly Ser Pro Asn	Leu Ser Tyr His Val	
11630	11635	11640	
gag aga agg ctt aag	ggc tcc gat gac tgg	gaa aga gtg cat aaa	35097
Glu Arg Arg Leu Lys	Gly Ser Asp Asp Trp	Glu Arg Val His Lys	
11645	11650	11655	
gga agc att aaa gaa	act cac tac atg gtt	gac aga tgt gtt gaa	35142
Gly Ser Ile Lys Glu	Thr His Tyr Met Val	Asp Arg Cys Val Glu	
11660	11665	11670	
aac cag att tat gag	ttc aga gtg caa aca	aag aat gaa ggt ggg	35187
Asn Gln Ile Tyr Glu	Phe Arg Val Gln Thr	Lys Asn Glu Gly Gly	
11675	11680	11685	
gaa agt gac tgg gtg	aag aca gag gaa gtt	gtt gtg aaa gaa gac	35232
Glu Ser Asp Trp Val	Lys Thr Glu Glu Val	Val Val Lys Glu Asp	
11690	11695	11700	
tta caa aaa cca gta	ctt gat ctg aaa tta	agt ggg gtc cta act	35277
Leu Gln Lys Pro Val	Leu Asp Leu Lys Leu	Ser Gly Val Leu Thr	
11705	11710	11715	
gtc aaa gca ggg gac	acc att agg ctt gag	gca ggg gtt aga ggc	35322
Val Lys Ala Gly Asp	Thr Ile Arg Leu Glu	Ala Gly Val Arg Gly	
11720	11725	11730	
aaa cca ttc cca gaa	gtt gca tgg acc aag	gac aaa gac gct aca	35367
Lys Pro Phe Pro Glu	Val Ala Trp Thr Lys	Asp Lys Asp Ala Thr	
11735	11740	11745	
gac tta aca aga tca	cca agg gtc aag att	gat acc cgt gct gat	35412
Asp Leu Thr Arg Ser	Pro Arg Val Lys Ile	Asp Thr Arg Ala Asp	
11750	11755	11760	
tca tct aaa ttt tct	ctt act aaa gca aag	cga agt gat ggg ggt	35457
Ser Ser Lys Phe Ser	Leu Thr Lys Ala Lys	Arg Ser Asp Gly Gly	
11765	11770	11775	
aaa tat gta gtt acg	gca act aac acg gct	ggc agt ttt gtg gcc	35502
Lys Tyr Val Val Thr	Ala Thr Asn Thr Ala	Gly Ser Phe Val Ala	
11780	11785	11790	
tat gcc act gtc aat	gtt tta gat aag cct	ggt cct gtg aga aat	35547
Tyr Ala Thr Val Asn	Val Leu Asp Lys Pro	Gly Pro Val Arg Asn	

11795	11800	11805	
ctg aaa att gtt gat Leu Lys Ile Val Asp 11810	gtg tcc agt gat agg Val Ser Ser Asp Arg 11815	tgt act gtt tgc tgg Cys Thr Val Cys Trp 11820	35592
gat cca cca gaa gat Asp Pro Pro Glu Asp 11825	gat ggt ggc tgt gaa Asp Gly Gly Cys Glu 11830	atc caa aat tat att Ile Gln Asn Tyr Ile 11835	35637
cta gaa aaa tgt gag Leu Glu Lys Cys Glu 11840	aca aag cga atg gtt Thr Lys Arg Met Val 11845	tgg tct acc tat tct Trp Ser Thr Tyr Ser 11850	35682
gct act gtc ttg aca Ala Thr Val Leu Thr 11855	cct ggt act aca gta Pro Gly Thr Thr Val 11860	aca cgt ctc ata gaa Thr Arg Leu Ile Glu 11865	35727
gga aat gaa tat att Gly Asn Glu Tyr Ile 11870	ttc aga gtc cgt gca Phe Arg Val Arg Ala 11875	gaa aat aaa ata ggc Glu Asn Lys Ile Gly 11880	35772
aca ggg cct cca aca Thr Gly Pro Pro Thr 11885	gaa agt aaa cca gtc Glu Ser Lys Pro Val 11890	ata gcc aaa acc aag Ile Ala Lys Thr Lys 11895	35817
tat gat aaa cct ggt Tyr Asp Lys Pro Gly 11900	cgc cct gat ccc cca Arg Pro Asp Pro Pro 11905	gaa gtc act aaa gta Glu Val Thr Lys Val 11910	35862
agc aaa gaa gag atg Ser Lys Glu Glu Met 11915	act gtg gtt tgg aat Thr Val Val Trp Asn 11920	cca cct gaa tat gat Pro Pro Glu Tyr Asp 11925	35907
ggt gga aag tct ata Gly Gly Lys Ser Ile 11930	act gga tac ttt ttg Thr Gly Tyr Phe Leu 11935	gag aaa aag gaa aag Glu Lys Lys Glu Lys 11940	35952
cat tca aca cga tgg His Ser Thr Arg Trp 11945	gtc cct gtc aac aag Val Pro Val Asn Lys 11950	agt gca atc cct gag Ser Ala Ile Pro Glu 11955	35997
aga cgt atg aaa gta Arg Arg Met Lys Val 11960	cag aat ctc ctc cca Gln Asn Leu Leu Pro 11965	gac cat gaa tat cag Asp His Glu Tyr Gln 11970	36042
ttc cgt gtc aag gca Phe Arg Val Lys Ala 11975	gaa aat gaa att gga Glu Asn Glu Ile Gly 11980	att gga gaa cca agc Ile Gly Glu Pro Ser 11985	36087
ttg cct tca aga ccg Leu Pro Ser Arg Pro 11990	gtg gtg gca aaa gac Val Val Ala Lys Asp 11995	ccc ata gag cca cct Pro Ile Glu Pro Pro 12000	36132
ggt cca cca acc aat Gly Pro Pro Thr Asn 12005	ttc aga gtg gtt gat Phe Arg Val Val Asp 12010	aca acc aaa cat tcc Thr Thr Lys His Ser 12015	36177

ata act ctt ggg tgg	gga aaa cca gtc tat	gat ggt ggt gca ccg	36222
Ile Thr Leu Gly Trp	Gly Lys Pro Val Tyr	Asp Gly Gly Ala Pro	
12020	12025	12030	
atc att gga tat gtt	gtg gaa atg aga cca	aaa ata gca gat gcg	36267
Ile Ile Gly Tyr Val	Val Glu Met Arg Pro	Lys Ile Ala Asp Ala	
12035	12040	12045	
tct cct gat gaa ggc	tgg aaa cgg tgt aat	gct gca gca cag ctt	36312
Ser Pro Asp Glu Gly	Trp Lys Arg Cys Asn	Ala Ala Ala Gln Leu	
12050	12055	12060	
gta cgc aag gaa ttc	act gtt acc agc ttg	gat gaa aac cag gaa	36357
Val Arg Lys Glu Phe	Thr Val Thr Ser Leu	Asp Glu Asn Gln Glu	
12065	12070	12075	
tat gag ttc agg gtg	tgt gcc caa aac caa	gtt ggt att ggg cgc	36402
Tyr Glu Phe Arg Val	Cys Ala Gln Asn Gln	Val Gly Ile Gly Arg	
12080	12085	12090	
cct gca gag cta aag	gaa gct atc aaa cct	aaa gaa ata cta gaa	36447
Pro Ala Glu Leu Lys	Glu Ala Ile Lys Pro	Lys Glu Ile Leu Glu	
12095	12100	12105	
cct ccg gag att gat	ttg gat gcc agc atg	agg aaa ctg gtc ata	36492
Pro Pro Glu Ile Asp	Leu Asp Ala Ser Met	Arg Lys Leu Val Ile	
12110	12115	12120	
gtg aga gca gga tgc	cct att cgt ctc ttt	gct ata gtg aga gga	36537
Val Arg Ala Gly Cys	Pro Ile Arg Leu Phe	Ala Ile Val Arg Gly	
12125	12130	12135	
cga cca gcc cct aaa	gtc act tgg cga aaa	gtt ggc att gat aat	36582
Arg Pro Ala Pro Lys	Val Thr Trp Arg Lys	Val Gly Ile Asp Asn	
12140	12145	12150	
gtg gtc aga aaa gga	caa gtt gat ctg gtt	gac act atg gcc ttc	36627
Val Val Arg Lys Gly	Gln Val Asp Leu Val	Asp Thr Met Ala Phe	
12155	12160	12165	
ctt gtc atc ccc aat	tct acc cgt gat gac	tca gga aaa tat tcc	36672
Leu Val Ile Pro Asn	Ser Thr Arg Asp Asp	Ser Gly Lys Tyr Ser	
12170	12175	12180	
tta aca ctt gtg aac	cca gca gga gaa aag	gct gta ttc gta aat	36717
Leu Thr Leu Val Asn	Pro Ala Gly Glu Lys	Ala Val Phe Val Asn	
12185	12190	12195	
gtc aga gta tta gac	act cct ggg cct gtg	tct gat tta aaa gtt	36762
Val Arg Val Leu Asp	Thr Pro Gly Pro Val	Ser Asp Leu Lys Val	
12200	12205	12210	
tca gat gtc act aaa	aca tca tgc cat gtg	tcc tgg gcc cct cct	36807
Ser Asp Val Thr Lys	Thr Ser Cys His Val	Ser Trp Ala Pro Pro	
12215	12220	12225	
gaa aac gac ggt ggg	agc caa gtg aca cat	tat atc gtg gag aaa	36852
Glu Asn Asp Gly Gly	Ser Gln Val Thr His	Tyr Ile Val Glu Lys	

12230	12235	12240	
cgt gag gca gac aga Arg Glu Ala Asp Arg 12245	aag aca tgg tcg acc Lys Thr Trp Ser Thr 12250	gtt acc cca gaa gtt Val Thr Pro Glu Val 12255	36897
aag aaa aca agc ttc Lys Lys Thr Ser Phe 12260	cat gta acc aat ctt His Val Thr Asn Leu 12265	gtc cct ggg aat gag Val Pro Gly Asn Glu 12270	36942
tat tac ttc aga gta Tyr Tyr Phe Arg Val 12275	act gct gtc aac gaa Thr Ala Val Asn Glu 12280	tat ggc cct ggc gtc Tyr Gly Pro Gly Val 12285	36987
cca aca gat gtc cca Pro Thr Asp Val Pro 12290	aaa cca gtg ctt gca Lys Pro Val Leu Ala 12295	tca gat cct cta agt Ser Asp Pro Leu Ser 12300	37032
gag ccg gat ccc cca Glu Pro Asp Pro Pro 12305	agg aaa tta gaa gcg Arg Lys Leu Glu Ala 12310	act gaa atg acc aag Thr Glu Met Thr Lys 12315	37077
aac agt gcc acc tta Asn Ser Ala Thr Leu 12320	gcc tgg tta cct ccc Ala Trp Leu Pro Pro 12325	cta cgt gat gga ggt Leu Arg Asp Gly Gly 12330	37122
gct aaa atc gat ggc Ala Lys Ile Asp Gly 12335	tac atc att agt tac Tyr Ile Ile Ser Tyr 12340	aga gaa gaa gag cag Arg Glu Glu Glu Gln 12345	37167
cct gca gat cgc tgg Pro Ala Asp Arg Trp 12350	aca gag tac tca gtg Thr Glu Tyr Ser Val 12355	gta aaa gat ctg agc Val Lys Asp Leu Ser 12360	37212
ctt gtt gtc act ggc Leu Val Val Thr Gly 12365	cta aag gaa gga aag Leu Lys Glu Gly Lys 12370	aaa tac aaa ttt aga Lys Tyr Lys Phe Arg 12375	37257
gta gcg gcc aga aat Val Ala Ala Arg Asn 12380	gct gtt gga gtc agt Ala Val Gly Val Ser 12385	ttg cca aga gaa gct Leu Pro Arg Glu Ala 12390	37302
gaa gga gtg tat gaa Glu Gly Val Tyr Glu 12395	gcc aaa gag caa ctg Ala Lys Glu Gln Leu 12400	ttg cca cca aag atc Leu Pro Pro Lys Ile 12405	37347
ctt atg cca gag caa Leu Met Pro Glu Gln 12410	ata act atc aaa gct Ile Thr Ile Lys Ala 12415	ggg aaa aaa ctc cga Gly Lys Lys Leu Arg 12420	37392
att gaa gcc cat gtg Ile Glu Ala His Val 12425	tat gga aag cct cat Tyr Gly Lys Pro His 12430	ccc acc tgt aaa tgg Pro Thr Cys Lys Trp 12435	37437
aaa aaa gga gaa gat Lys Lys Gly Glu Asp 12440	gaa gtt gtc aca tcc Glu Val Val Thr Ser 12445	agc cac ctg gca gtg Ser His Leu Ala Val 12450	37482

cat aaa gca gac agc	tct tca att ctg atc	ata aaa gat gtg act	37527
His Lys Ala Asp Ser	Ser Ser Ile Leu Ile	Ile Lys Asp Val Thr	
12455	12460	12465	
agg aaa gac agt ggt	tac tac agc ctc aca	gca gag aac agt tct	37572
Arg Lys Asp Ser Gly	Tyr Tyr Ser Leu Thr	Ala Glu Asn Ser Ser	
12470	12475	12480	
ggg aca gac act cag	aaa atc aaa gtt gta	gtc atg gat gcc ccc	37617
Gly Thr Asp Thr Gln	Lys Ile Lys Val Val	Val Met Asp Ala Pro	
12485	12490	12495	
ggc ccc cct cag cct	cca ttt gac att tct	gat ata gac gct gat	37662
Gly Pro Pro Gln Pro	Pro Phe Asp Ile Ser	Asp Ile Asp Ala Asp	
12500	12505	12510	
gct tgc tcc ctg tca	tgg cac atc cct ctg	gag gac gga ggc agt	37707
Ala Cys Ser Leu Ser	Trp His Ile Pro Leu	Glu Asp Gly Gly Ser	
12515	12520	12525	
aac atc acc aat tat	ata gtg gag aag tgt	gat gta agc cga ggt	37752
Asn Ile Thr Asn Tyr	Ile Val Glu Lys Cys	Asp Val Ser Arg Gly	
12530	12535	12540	
gac tgg gtc acg gct	cta gct tca gtc aca	aaa act tcc tgc agg	37797
Asp Trp Val Thr Ala	Leu Ala Ser Val Thr	Lys Thr Ser Cys Arg	
12545	12550	12555	
gtt gga aag ctg atc	cca ggc caa gag tac	atc ttc cgg gtc cgt	37842
Val Gly Lys Leu Ile	Pro Gly Gln Glu Tyr	Ile Phe Arg Val Arg	
12560	12565	12570	
gct gaa aac cga ttt	ggc att tca gag cct	ctc aca tct cca aag	37887
Ala Glu Asn Arg Phe	Gly Ile Ser Glu Pro	Leu Thr Ser Pro Lys	
12575	12580	12585	
atg gtt gcg cag ttc	cca ttt ggt gtt cct	agt gaa cca aag aat	37932
Met Val Ala Gln Phe	Pro Phe Gly Val Pro	Ser Glu Pro Lys Asn	
12590	12595	12600	
gca cga gtc acc aaa	gtc aac aag gac tgt	att ttt gtt gct tgg	37977
Ala Arg Val Thr Lys	Val Asn Lys Asp Cys	Ile Phe Val Ala Trp	
12605	12610	12615	
gac aga cca gat agt	gat gga ggg agc ccc	att att ggt tat ctg	38022
Asp Arg Pro Asp Ser	Asp Gly Gly Ser Pro	Ile Ile Gly Tyr Leu	
12620	12625	12630	
att gaa cgc aag gaa	aga aac agt ttg ctg	tgg gtg aaa gcc aat	38067
Ile Glu Arg Lys Glu	Arg Asn Ser Leu Leu	Trp Val Lys Ala Asn	
12635	12640	12645	
gat act ctt gtc cg	tca act gaa tat cct	tgt gct ggc ctt gta	38112
Asp Thr Leu Val Arg	Ser Thr Glu Tyr Pro	Cys Ala Gly Leu Val	
12650	12655	12660	
gaa ggt ctt gag tat	tca ttc aga atc tat	gcc cta aac aaa gct	38157
Glu Gly Leu Glu Tyr	Ser Phe Arg Ile Tyr	Ala Leu Asn Lys Ala	

12665	12670	12675	
gga tcc agc cca ccc Gly Ser Ser Pro Pro 12680	agc aaa ccc aca gaa Ser Lys Pro Thr Glu 12685	tat gta act gca aga Tyr Val Thr Ala Arg 12690	38202
atg cca gtt gat cct Met Pro Val Asp Pro 12695	cct ggg aaa cct gag Pro Gly Lys Pro Glu 12700	gtt att gat gtc acc Val Ile Asp Val Thr 12705	38247
aag agt act gta tct Lys Ser Thr Val Ser 12710	ctg atc tgg gct cgt Leu Ile Trp Ala Arg 12715	cca aag cat gat gga Pro Lys His Asp Gly 12720	38292
ggc agt aaa att att Gly Ser Lys Ile Ile 12725	ggc tat ttc gta gaa Gly Tyr Phe Val Glu 12730	gct tgc aaa ctt cct Ala Cys Lys Leu Pro 12735	38337
ggt gat aaa tgg gta Gly Asp Lys Trp Val 12740	cgg tgc aat act gca Arg Cys Asn Thr Ala 12745	cct cac cag att ccc Pro His Gln Ile Pro 12750	38382
cag gaa gag tac aca Gln Glu Glu Tyr Thr 12755	gct act ggc cta gaa Ala Thr Gly Leu Glu 12760	gag aaa gct cag tat Glu Lys Ala Gln Tyr 12765	38427
caa ttt aga gct att Gln Phe Arg Ala Ile 12770	gcc agg acc gcg gta Ala Arg Thr Ala Val 12775	aac att agc cca cct Asn Ile Ser Pro Pro 12780	38472
tct gaa cct tct gat Ser Glu Pro Ser Asp 12785	cca gtg act atc ctc Pro Val Thr Ile Leu 12790	gca gaa aat gtc cct Ala Glu Asn Val Pro 12795	38517
ccc agg ata gac ctg Pro Arg Ile Asp Leu 12800	agt gtg gct atg aaa Ser Val Ala Met Lys 12805	tct ttg ctt act gtg Ser Leu Leu Thr Val 12810	38562
aaa gct gga act aat Lys Ala Gly Thr Asn 12815	gtc tgc ttg gat gct Val Cys Leu Asp Ala 12820	act gtt ttt ggt aaa Thr Val Phe Gly Lys 12825	38607
ccg atg cca aca gtt Pro Met Pro Thr Val 12830	tct tgg aaa aaa gat Ser Trp Lys Lys Asp 12835	ggc aca ctg cta aaa Gly Thr Leu Leu Lys 12840	38652
cca gca gaa ggc ata Pro Ala Glu Gly Ile 12845	aag atg gcc atg cag Lys Met Ala Met Gln 12850	cgg aat ctg tgc acc Arg Asn Leu Cys Thr 12855	38697
ttg gag cta ttc agc Leu Glu Leu Phe Ser 12860	gtg aac cgg aag gac Val Asn Arg Lys Asp 12865	tca gga gac tat acc Ser Gly Asp Tyr Thr 12870	38742
att act gct gaa aat Ile Thr Ala Glu Asn 12875	tca agt ggt tct aaa Ser Ser Gly Ser Lys 12880	tca gcc acc att aag Ser Ala Thr Ile Lys 12885	38787

ctt aaa gtg tta gat	aaa ccg ggt cct cca	gca tct gtt aaa atc	38832
Leu Lys Val Leu Asp	Lys Pro Gly Pro Pro	Ala Ser Val Lys Ile	
12890	12895	12900	
aac aaa atg tat tca	gat cgt gct atg ctt	tct tgg gaa ccg cct	38877
Asn Lys Met Tyr Ser	Asp Arg Ala Met Leu	Ser Trp Glu Pro Pro	
12905	12910	12915	
ctt gaa gat gga ggc	tca gaa atc acc aac	tat att gtt gac aaa	38922
Leu Glu Asp Gly Gly	Ser Glu Ile Thr Asn	Tyr Ile Val Asp Lys	
12920	12925	12930	
cgt gaa aca agc agg	ccc aac tgg gct caa	gtc tct gca act gtg	38967
Arg Glu Thr Ser Arg	Pro Asn Trp Ala Gln	Val Ser Ala Thr Val	
12935	12940	12945	
cct atc acc agc tgc	agc gtg gag aaa ctt	ata gag ggc cat gag	39012
Pro Ile Thr Ser Cys	Ser Val Glu Lys Leu	Ile Glu Gly His Glu	
12950	12955	12960	
tat cag ttc cgt att	tgt gct gaa aat aaa	tat gga gta ggc gat	39057
Tyr Gln Phe Arg Ile	Cys Ala Glu Asn Lys	Tyr Gly Val Gly Asp	
12965	12970	12975	
cca gtc ttc act gaa	cca gca att gcc aaa	aac cca tat gac cca	39102
Pro Val Phe Thr Glu	Pro Ala Ile Ala Lys	Asn Pro Tyr Asp Pro	
12980	12985	12990	
cca gga cgc tgt gat	cct cct gtt att agc	aac ata acc aaa gat	39147
Pro Gly Arg Cys Asp	Pro Pro Val Ile Ser	Asn Ile Thr Lys Asp	
12995	13000	13005	
cac atg aca gtc agc	tgg aag cca cca gca	gat gat ggg ggc tca	39192
His Met Thr Val Ser	Trp Lys Pro Pro Ala	Asp Asp Gly Gly Ser	
13010	13015	13020	
ccc atc act ggc tat	ttg ctt gaa aag cgg	gaa acc cag gct gtt	39237
Pro Ile Thr Gly Tyr	Leu Leu Glu Lys Arg	Glu Thr Gln Ala Val	
13025	13030	13035	
aac tgg act aag gtc	aac aga aaa cct att	ata gaa aga aca tta	39282
Asn Trp Thr Lys Val	Asn Arg Lys Pro Ile	Ile Glu Arg Thr Leu	
13040	13045	13050	
aaa gca aca ggt ctt	caa gaa ggt acc gaa	tat gag ttc cgt gtt	39327
Lys Ala Thr Gly Leu	Gln Glu Gly Thr Glu	Tyr Glu Phe Arg Val	
13055	13060	13065	
aca gct ata aat aaa	gct gga cca ggc aaa	ccc agt gac gca tcc	39372
Thr Ala Ile Asn Lys	Ala Gly Pro Gly Lys	Pro Ser Asp Ala Ser	
13070	13075	13080	
aag gcc gct tat gct	cg ^g gac cct cag tat	cct cct gc ^g cca cc ^g	39417
Lys Ala Ala Tyr Ala	Arg Asp Pro Gln Tyr	Pro Pro Ala Pro Pro	
13085	13090	13095	
gct ttc cct aaa gta	tat gat aca act cgc	agc tct gtg agt cta	39462
Ala Phe Pro Lys Val	Tyr Asp Thr Thr Arg	Ser Ser Val Ser Leu	

13100	13105	13110	
tct tgg ggc aag cca Ser Trp Gly Lys Pro	gcc tat gac ggc ggc Ala Tyr Asp Gly Gly	agc cct atc att ggt Ser Pro Ile Ile Gly	39507
13115	13120	13125	
tat ctc gtt gaa gta Tyr Leu Val Glu Val	aaa cgg gct gac tcc Lys Arg Ala Asp Ser	gat aac tgg gtg agg Asp Asn Trp Val Arg	39552
13130	13135	13140	
tgc aac tta cca cag Cys Asn Leu Pro Gln	aat cta cag aaa acc Asn Leu Gln Lys Thr	cgc ttt gag gtt act Arg Phe Glu Val Thr	39597
13145	13150	13155	
ggc ctg atg gaa gac Gly Leu Met Glu Asp	aca caa tat caa ttc Thr Gln Tyr Gln Phe	cgt gtg tat gcc gtt Arg Val Tyr Ala Val	39642
13160	13165	13170	
aat aag att gga tac Asn Lys Ile Gly Tyr	agt gac ccc agt gat Ser Asp Pro Ser Asp	gtg cca gat aaa cac Val Pro Asp Lys His	39687
13175	13180	13185	
tat ccc aag gac atc Tyr Pro Lys Asp Ile	tta att cca cct gag Leu Ile Pro Pro Glu	gga gaa cat gat gcg Gly Glu His Asp Ala	39732
13190	13195	13200	
gac tta agg aag aca Asp Leu Arg Lys Thr	ctc ata tta cgt gct Leu Ile Leu Arg Ala	gga gtt act atg aga Gly Val Thr Met Arg	39777
13205	13210	13215	
cta tat gta cca gta Leu Tyr Val Pro Val	aaa gga cgc cca cct Lys Gly Arg Pro Pro	cca aag att act tgg Pro Lys Ile Thr Trp	39822
13220	13225	13230	
tct aaa cca aat gtc Ser Lys Pro Asn Val	aat cta aga gac agg Asn Leu Arg Asp Arg	att gga ctg gac ata Ile Gly Leu Asp Ile	39867
13235	13240	13245	
aag tca act gac ttt Lys Ser Thr Asp Phe	gac act ttc ttg cgc Asp Thr Phe Leu Arg	tgt gaa aat gtg aac Cys Glu Asn Val Asn	39912
13250	13255	13260	
aaa tat gat gca gga Lys Tyr Asp Ala Gly	aaa tat atc tta acc Lys Tyr Ile Leu Thr	ctg gag aac agc tgt Leu Glu Asn Ser Cys	39957
13265	13270	13275	
ggt aaa aag gaa tat Gly Lys Lys Glu Tyr	acc att gtt gtg aaa Thr Ile Val Val Lys	gtg ctt gat act cct Val Leu Asp Thr Pro	40002
13280	13285	13290	
ggg cca cct atc aat Gly Pro Pro Ile Asn	gtg act gtt aag gaa Val Thr Val Lys Glu	ata tcc aaa gac tct Ile Ser Lys Asp Ser	40047
13295	13300	13305	
gct tat gtt acc tgg Ala Tyr Val Thr Trp	gag cct ccc att att Glu Pro Pro Ile Ile	gat ggc gga agc ccc Asp Gly Gly Ser Pro	40092
13310	13315	13320	

atc ata aac tat gtg	gta caa aaa cgt gat	gca gag agg aaa tcc	40137
Ile Ile Asn Tyr Val	Val Gln Lys Arg Asp	Ala Glu Arg Lys Ser	
13325	13330	13335	
tgg tct aca gtg aca	act gag tgc tcc aaa	aca agc ttc aga gta	40182
Trp Ser Thr Val Thr	Thr Glu Cys Ser Lys	Thr Ser Phe Arg Val	
13340	13345	13350	
cct aat ttg gag gag	gga aaa tcc tac ttc	ttc cga gtg ttt gct	40227
Pro Asn Leu Glu Glu	Gly Lys Ser Tyr Phe	Phe Arg Val Phe Ala	
13355	13360	13365	
gaa aat gag tat ggc	att ggt gat ccc ggt	gaa act cgt gat gct	40272
Glu Asn Glu Tyr Gly	Ile Gly Asp Pro Gly	Glu Thr Arg Asp Ala	
13370	13375	13380	
gtc aaa gct tcc caa	act cct gga cca gtt	gtg gac ctg aaa gtg	40317
Val Lys Ala Ser Gln	Thr Pro Gly Pro Val	Val Asp Leu Lys Val	
13385	13390	13395	
agg tct gta tct aag	tca tcc tgt agc att	ggc tgg aaa aag cct	40362
Arg Ser Val Ser Lys	Ser Ser Cys Ser Ile	Gly Trp Lys Lys Pro	
13400	13405	13410	
cac agt gat ggt gga	agt cgg att att gga	tat gta gtt gat ttc	40407
His Ser Asp Gly Gly	Ser Arg Ile Ile Gly	Tyr Val Val Asp Phe	
13415	13420	13425	
ctg act gaa gaa aat	aag tgg caa cga gtt	atg aaa tcc tta agc	40452
Leu Thr Glu Glu Asn	Lys Trp Gln Arg Val	Met Lys Ser Leu Ser	
13430	13435	13440	
cta cag tac tct gca	aaa gat ttg act gaa	ggg aag gaa tat acc	40497
Leu Gln Tyr Ser Ala	Lys Asp Leu Thr Glu	Gly Lys Glu Tyr Thr	
13445	13450	13455	
ttc aga gtg agt gct	gag aat gaa aat gga	gaa gga acc cca agc	40542
Phe Arg Val Ser Ala	Glu Asn Glu Asn Gly	Glu Gly Thr Pro Ser	
13460	13465	13470	
gaa atc act gtt gtg	gca agg gat gat gtt	gtg gct cct gat ctt	40587
Glu Ile Thr Val Val	Ala Arg Asp Asp Val	Val Ala Pro Asp Leu	
13475	13480	13485	
gac tta aag ggt cta	cct gat ttg tgc tac	ttg gct aaa gaa aac	40632
Asp Leu Lys Gly Leu	Pro Asp Leu Cys Tyr	Leu Ala Lys Glu Asn	
13490	13495	13500	
agc aac ttc cgg ctt	aag atc ccc ata aaa	ggc aag cca gct cca	40677
Ser Asn Phe Arg Leu	Lys Ile Pro Ile Lys	Gly Lys Pro Ala Pro	
13505	13510	13515	
tca gtc tcc tgg aag	aaa ggg gaa gat cct	cta gca act gac act	40722
Ser Val Ser Trp Lys	Lys Gly Glu Asp Pro	Leu Ala Thr Asp Thr	
13520	13525	13530	
aga gtc agt gtt gag	tca tct gcg gtt aac	aca act ctt ata gtg	40767
Arg Val Ser Val Glu	Ser Ser Ala Val Asn	Thr Thr Leu Ile Val	

13535	13540	13545	
tac gat tgc caa aaa Tyr Asp Cys Gln Lys 13550	tct gat gct gga aaa Ser Asp Ala Gly Lys 13555	tac aca atc aca ctt Tyr Thr Ile Thr Leu 13560	40812
aag aat gtt gct ggc Lys Asn Val Ala Gly 13565	acc aag gaa gga act Thr Lys Glu Gly Thr 13570	atc tcc ata aag gtt Ile Ser Ile Lys Val 13575	40857
gtt ggc aag cct ggc Val Gly Lys Pro Gly 13580	atc ccc act gga cca Ile Pro Thr Gly Pro 13585	atc aaa ttt gat gaa Ile Lys Phe Asp Glu 13590	40902
gtc aca gca gaa gcc Val Thr Ala Glu Ala 13595	atg acc tta aag tgg Met Thr Leu Lys Trp 13600	gct cct cca aag gat Ala Pro Pro Lys Asp 13605	40947
gat gga ggt tct gaa Asp Gly Gly Ser Glu 13610	atc acc aac tat atc Ile Thr Asn Tyr Ile 13615	cta gag aag agg gat Leu Glu Lys Arg Asp 13620	40992
tct gtg aac aac aag Ser Val Asn Asn Lys 13625	tgg gtg acg tgc gcc Trp Val Thr Cys Ala 13630	tca gct gtc cag aaa Ser Ala Val Gln Lys 13635	41037
acc acc ttt aga gta Thr Thr Phe Arg Val 13640	acc aga ctt cat gag Thr Arg Leu His Glu 13645	ggc atg gaa tat acc Gly Met Glu Tyr Thr 13650	41082
ttc agg gtc agt gcc Phe Arg Val Ser Ala 13655	gaa aat aaa tat ggt Glu Asn Lys Tyr Gly 13660	gta ggg gaa ggc ctg Val Gly Glu Gly Leu 13665	41127
aaa tcg gag cca att Lys Ser Glu Pro Ile 13670	gtt gcg aga cat cca Val Ala Arg His Pro 13675	ttt gat gtg cct gat Phe Asp Val Pro Asp 13680	41172
gct ccc cca cct ccc Ala Pro Pro Pro Pro 13685	aat att gtg gat gtc Asn Ile Val Asp Val 13690	aga cac gat tca gta Arg His Asp Ser Val 13695	41217
tct cta act tgg act Ser Leu Thr Trp Thr 13700	gac ccc aag aaa act Asp Pro Lys Lys Thr 13705	ggt ggt tct cca att Gly Gly Ser Pro Ile 13710	41262
aca ggg tat cat ctc Thr Gly Tyr His Leu 13715	gag ttc aag gaa aga Glu Phe Lys Glu Arg 13720	aac agc ctt ttg tgg Asn Ser Leu Leu Trp 13725	41307
aag aga gct aac aag Lys Arg Ala Asn Lys 13730	act ccg ata agg atg Thr Pro Ile Arg Met 13735	aga gac ttt aaa gtg Arg Asp Phe Lys Val 13740	41352
aca gga tta act gaa Thr Gly Leu Thr Glu 13745	ggt ctt gaa tat gaa Gly Leu Glu Tyr Glu 13750	ttc cga gtt atg gca Phe Arg Val Met Ala 13755	41397

atc aat tta gca ggt	gtg ggc aag cca agc	cta cca tca gag cct	41442
Ile Asn Leu Ala Gly	Val Gly Lys Pro Ser	Leu Pro Ser Glu Pro	
13760	13765	13770	
gtt gtg gca ctg gac	cca att gat cct cct	gga aaa cct gag gtt	41487
Val Val Ala Leu Asp	Pro Ile Asp Pro Pro	Gly Lys Pro Glu Val	
13775	13780	13785	
att aac ata aca agg	aat tca gtg act ctc	att tgg act gaa cct	41532
Ile Asn Ile Thr Arg	Asn Ser Val Thr Leu	Ile Trp Thr Glu Pro	
13790	13795	13800	
aaa tat gac ggt ggt	cat aag tta act gga	tat ata gtg gag aag	41577
Lys Tyr Asp Gly Gly	His Lys Leu Thr Gly	Tyr Ile Val Glu Lys	
13805	13810	13815	
cga gat cta cct tcg	aag tct tgg atg aaa	gcc aac cat gtt aat	41622
Arg Asp Leu Pro Ser	Lys Ser Trp Met Lys	Ala Asn His Val Asn	
13820	13825	13830	
gtc cca gaa tgt gcc	ttt act gta act gac	ctt gtt gag ggt gga	41667
Val Pro Glu Cys Ala	Phe Thr Val Thr Asp	Leu Val Glu Gly Gly	
13835	13840	13845	
aaa tat gaa ttc aga	att aga gca aag aat	aca gca ggt gct atc	41712
Lys Tyr Glu Phe Arg	Ile Arg Ala Lys Asn	Thr Ala Gly Ala Ile	
13850	13855	13860	
agt gct cca tca gaa	agt aca gaa acc att	att tgc aag gat gaa	41757
Ser Ala Pro Ser Glu	Ser Thr Glu Thr Ile	Ile Cys Lys Asp Glu	
13865	13870	13875	
tac gag gca cca aca	att gtc ctt gat ccc	aca ata aaa gat ggg	41802
Tyr Glu Ala Pro Thr	Ile Val Leu Asp Pro	Thr Ile Lys Asp Gly	
13880	13885	13890	
cta aca att aaa gca	ggg gat acc att gtt	ttg aat gcc att agc	41847
Leu Thr Ile Lys Ala	Gly Asp Thr Ile Val	Leu Asn Ala Ile Ser	
13895	13900	13905	
att ctt ggc aaa ccc	ctt cca aaa tca agt	tgg tcc aag gca gga	41892
Ile Leu Gly Lys Pro	Leu Pro Lys Ser Ser	Trp Ser Lys Ala Gly	
13910	13915	13920	
aaa gac att aga cca	tca gat atc act cag	ata act tca acc cca	41937
Lys Asp Ile Arg Pro	Ser Asp Ile Thr Gln	Ile Thr Ser Thr Pro	
13925	13930	13935	
aca tct tcc atg ctt	act atc aag tat gcc	act aga aaa gat gcg	41982
Thr Ser Ser Met Leu	Thr Ile Lys Tyr Ala	Thr Arg Lys Asp Ala	
13940	13945	13950	
ggt gaa tat acc atc	act gct acc aat cct	ttt ggc acg aag gtg	42027
Gly Glu Tyr Thr Ile	Thr Ala Thr Asn Pro	Phe Gly Thr Lys Val	
13955	13960	13965	
gaa cat gtg aag gta	aca gtc ctt gat gta	cct ggt ccc cca ggt	42072
Glu His Val Lys Val	Thr Val Leu Asp Val	Pro Gly Pro Pro Gly	

13970	13975	13980	
cct gtt gaa atc agt Pro Val Glu Ile Ser 13985	aat gtt tct gct gaa Asn Val Ser Ala Glu 13990	aaa gca aca ctt aca Lys Ala Thr Leu Thr 13995	42117
tgg aca cct ccc ttg Trp Thr Pro Pro Leu 14000	gaa gat ggc ggc tca Glu Asp Gly Gly Ser 14005	cca att aag tcc tat Pro Ile Lys Ser Tyr 14010	42162
ata ctt gaa aag aga Ile Leu Glu Lys Arg 14015	gaa acc agc cga ctt Glu Thr Ser Arg Leu 14020	ttg tgg aca gtg gtt Leu Trp Thr Val Val 14025	42207
tct gaa gat att cag Ser Glu Asp Ile Gln 14030	tct tgc agg cat gtg Ser Cys Arg His Val 14035	gca acc aaa ctt atc Ala Thr Lys Leu Ile 14040	42252
caa gga aat gag tac Gln Gly Asn Glu Tyr 14045	atc ttc cgg gtc tca Ile Phe Arg Val Ser 14050	gct gta aac cac tat Ala Val Asn His Tyr 14055	42297
ggc aaa gga gaa cct Gly Lys Gly Glu Pro 14060	gta cag tct gaa cct Val Gln Ser Glu Pro 14065	gtc aaa atg gta gac Val Lys Met Val Asp 14070	42342
aga ttt ggt ccc cct Arg Phe Gly Pro Pro 14075	ggc cct cct gaa aaa Gly Pro Pro Glu Lys 14080	cca gag gta tca aat Pro Glu Val Ser Asn 14085	42387
gtc act aag aac act Val Thr Lys Asn Thr 14090	gcc act gtc agc tgg Ala Thr Val Ser Trp 14095	aaa agg cca gtg gat Lys Arg Pro Val Asp 14100	42432
gat ggt ggc agc gaa Asp Gly Gly Ser Glu 14105	att aca gga tat cat Ile Thr Gly Tyr His 14110	gta gaa agg aga gaa Val Glu Arg Arg Glu 14115	42477
aag aaa agc ctg cga Lys Lys Ser Leu Arg 14120	tgg gtg aga gca ata Trp Val Arg Ala Ile 14125	aaa aca cca gtt tcc Lys Thr Pro Val Ser 14130	42522
gat ctc agg tgc aaa Asp Leu Arg Cys Lys 14135	gta aca gga ctg caa Val Thr Gly Leu Gln 14140	gaa gga agc acc tac Glu Gly Ser Thr Tyr 14145	42567
gaa ttc cgt gtc agt Glu Phe Arg Val Ser 14150	gca gaa aac aga gca Ala Glu Asn Arg Ala 14155	gga att ggt cca ccc Gly Ile Gly Pro Pro 14160	42612
agt gag gct tca gat Ser Glu Ala Ser Asp 14165	tct gtt ctg atg aaa Ser Val Leu Met Lys 14170	gat gca gca tat cct Asp Ala Ala Tyr Pro 14175	42657
cca gga cca cct tca Pro Gly Pro Pro Ser 14180	aat ccg cat gtc act Asn Pro His Val Thr 14185	gat act acc aag aaa Asp Thr Thr Lys Lys 14190	42702

tct gct tct ttg gca	tgg ggc aag cct cat	tat gat ggt gga ctt	42747
Ser Ala Ser Leu Ala	Trp Gly Lys Pro His	Tyr Asp Gly Gly Leu	
14195	14200	14205	
gaa atc act ggc tat	gtc gtg gag cat caa	aaa gta gga gac gag	42792
Glu Ile Thr Gly Tyr	Val Val Glu His Gln	Lys Val Gly Asp Glu	
14210	14215	14220	
gcc tgg ata aaa gat	acc aca gga acc gcc	ctc aga atc act cag	42837
Ala Trp Ile Lys Asp	Thr Thr Gly Thr Ala	Leu Arg Ile Thr Gln	
14225	14230	14235	
ttc gtt gtt cct gat	ctt cag act aaa gaa	aaa tac aac ttc aga	42882
Phe Val Val Pro Asp	Leu Gln Thr Lys Glu	Lys Tyr Asn Phe Arg	
14240	14245	14250	
atc agt gcc atc aac	gat gca ggt gtt ggg	gag cca gcg gtg att	42927
Ile Ser Ala Ile Asn	Asp Ala Gly Val Gly	Glu Pro Ala Val Ile	
14255	14260	14265	
cca gat gtt gaa atc	gta gaa cgg gag atg	gct cct gat ttt gaa	42972
Pro Asp Val Glu Ile	Val Glu Arg Glu Met	Ala Pro Asp Phe Glu	
14270	14275	14280	
cta gat gcc gag ctt	cga aga aca ctt gtt	gtt aga gca gga ctc	43017
Leu Asp Ala Glu Leu	Arg Arg Thr Leu Val	Val Arg Ala Gly Leu	
14285	14290	14295	
agt att agg ata ttt	gtg cca att aaa ggt	cgt cct gct cct gaa	43062
Ser Ile Arg Ile Phe	Val Pro Ile Lys Gly	Arg Pro Ala Pro Glu	
14300	14305	14310	
gtg aca tgg acc aaa	gat aac atc aac ctg	aaa aac cga gcc aac	43107
Val Thr Trp Thr Lys	Asp Asn Ile Asn Leu	Lys Asn Arg Ala Asn	
14315	14320	14325	
att gaa aat acg gaa	tca ttt act ctt ctg	att atc cca gaa tgt	43152
Ile Glu Asn Thr Glu	Ser Phe Thr Leu Leu	Ile Ile Pro Glu Cys	
14330	14335	14340	
aac aga tat gat acc	ggt aaa ttt gtc atg	acc att gaa aac ccg	43197
Asn Arg Tyr Asp Thr	Gly Lys Phe Val Met	Thr Ile Glu Asn Pro	
14345	14350	14355	
gct ggg aag aaa agt	ggc ttt gtg aac gtc	aga gtc ttg gac acg	43242
Ala Gly Lys Lys Ser	Gly Phe Val Asn Val	Arg Val Leu Asp Thr	
14360	14365	14370	
cca ggc cca gtc ctc	aac ctg cgg cct aca	gac atc aca aag gac	43287
Pro Gly Pro Val Leu	Asn Leu Arg Pro Thr	Asp Ile Thr Lys Asp	
14375	14380	14385	
agt gtc acc ctg cac	tgg gac ctc cct ctg	ata gat gga ggc tca	43332
Ser Val Thr Leu His	Trp Asp Leu Pro Leu	Ile Asp Gly Gly Ser	
14390	14395	14400	
cgt ata aca aac tac	att gta gag aaa cgt	gaa gca aca cgg aaa	43377
Arg Ile Thr Asn Tyr	Ile Val Glu Lys Arg	Glu Ala Thr Arg Lys	

14405	14410	14415	
tct tat tcc aca gcc Ser Tyr Ser Thr Ala 14420	acc act aag tgc cat Thr Thr Lys Cys His 14425	aaa tgc aca tat aaa Lys Cys Thr Tyr Lys 14430	43422
gtt acc ggc ttg tct Val Thr Gly Leu Ser 14435	gaa ggg tgt gaa tat Glu Gly Cys Glu Tyr 14440	ttc ttc aga gtg atg Phe Phe Arg Val Met 14445	43467
gca gag aat gaa tat Ala Glu Asn Glu Tyr 14450	gga att ggt gag cca Gly Ile Gly Glu Pro 14455	aca gaa act aca gag Thr Glu Thr Thr Glu 14460	43512
ccc gta aaa gcc tct Pro Val Lys Ala Ser 14465	gaa gca cca tct cca Glu Ala Pro Ser Pro 14470	cca gac agc ctt aac Pro Asp Ser Leu Asn 14475	43557
atc atg gac ata act Ile Met Asp Ile Thr 14480	aag agc acc gtc agc Lys Ser Thr Val Ser 14485	ctg gca tgg cct aag Leu Ala Trp Pro Lys 14490	43602
ccc aaa cac gat ggt Pro Lys His Asp Gly 14495	ggc agc aag atc act Gly Ser Lys Ile Thr 14500	ggc tat gtg att gaa Gly Tyr Val Ile Glu 14505	43647
gcc caa aga aaa ggc Ala Gln Arg Lys Gly 14510	tct gac cag tgg acc Ser Asp Gln Trp Thr 14515	cac atc aca acc gtg His Ile Thr Thr Val 14520	43692
aaa ggg tta gaa tgt Lys Gly Leu Glu Cys 14525	gtt gtg agg aat cta Val Val Arg Asn Leu 14530	act gaa gga gag gaa Thr Glu Gly Glu Glu 14535	43737
tat acc ttc caa gtg Tyr Thr Phe Gln Val 14540	atg gca gtg aac agc Met Ala Val Asn Ser 14545	gcg ggg aga agt gcc Ala Gly Arg Ser Ala 14550	43782
cct aga gaa agc aga Pro Arg Glu Ser Arg 14555	ccc gtc att gtc aag Pro Val Ile Val Lys 14560	gag cag aca atg ctt Glu Gln Thr Met Leu 14565	43827
cca gag ctg gat ctc Pro Glu Leu Asp Leu 14570	cgt ggc atc tat cag Arg Gly Ile Tyr Gln 14575	aaa ctg gtc att gcc Lys Leu Val Ile Ala 14580	43872
aaa gct ggt gac aac Lys Ala Gly Asp Asn 14585	atc aaa gtt gaa att Ile Lys Val Glu Ile 14590	cca gtg ctc ggt cga Pro Val Leu Gly Arg 14595	43917
ccg aag ccc aca gtg Pro Lys Pro Thr Val 14600	aca tgg aaa aaa gga Thr Trp Lys Lys Gly 14605	gac caa att ctt aaa Asp Gln Ile Leu Lys 14610	43962
cag aca cag aga gtt Gln Thr Gln Arg Val 14615	aat ttt gaa acc aca Asn Phe Glu Thr Thr 14620	gcg act tca acc att Ala Thr Ser Thr Ile 14625	44007

tta aat atc aat gag	tgt gtc aga agt gat	agt ggg ccc tat cca	44052
Leu Asn Ile Asn Glu	Cys Val Arg Ser Asp	Ser Gly Pro Tyr Pro	
14630	14635	14640	
tta aca gca agg aac	att gta gga gag gtt	ggt gat gtc atc acc	44097
Leu Thr Ala Arg Asn	Ile Val Gly Glu Val	Gly Asp Val Ile Thr	
14645	14650	14655	
att caa gtc cat gat	atc cca ggg cca cct	act gga cca atc aaa	44142
Ile Gln Val His Asp	Ile Pro Gly Pro Pro	Thr Gly Pro Ile Lys	
14660	14665	14670	
ttt gat gaa gtt tca	tct gat ttt gta acc	ttc tct tgg gac cca	44187
Phe Asp Glu Val Ser	Ser Asp Phe Val Thr	Phe Ser Trp Asp Pro	
14675	14680	14685	
cct gag aac gat ggt	ggt gta cca ata agc	aac tat gta gtg gaa	44232
Pro Glu Asn Asp Gly	Gly Val Pro Ile Ser	Asn Tyr Val Val Glu	
14690	14695	14700	
atg cgg cag act gac	agt act acc tgg gtt	gag tta gca acc acc	44277
Met Arg Gln Thr Asp	Ser Thr Thr Trp Val	Glu Leu Ala Thr Thr	
14705	14710	14715	
gtt ata cgt act acc	tat aaa gcc acc cgc	ctt act act gga tta	44322
Val Ile Arg Thr Thr	Tyr Lys Ala Thr Arg	Leu Thr Thr Gly Leu	
14720	14725	14730	
gag tat cag ttc cgt	gta aaa gct cag aat	aga tat gga gtt gga	44367
Glu Tyr Gln Phe Arg	Val Lys Ala Gln Asn	Arg Tyr Gly Val Gly	
14735	14740	14745	
cca ggc atc aca tca	gca tgg ata gtt gcc	aac tat cca ttt aag	44412
Pro Gly Ile Thr Ser	Ala Trp Ile Val Ala	Asn Tyr Pro Phe Lys	
14750	14755	14760	
gtt cct gga cct cct	ggt acc cct cag gta	act gca gtt acc aag	44457
Val Pro Gly Pro Pro	Gly Thr Pro Gln Val	Thr Ala Val Thr Lys	
14765	14770	14775	
gat tca atg aca att	agc tgg cat gag cca	ctt tct gat ggt gga	44502
Asp Ser Met Thr Ile	Ser Trp His Glu Pro	Leu Ser Asp Gly Gly	
14780	14785	14790	
agc ccc att tta gga	tat cat gtt gaa aga	aaa gaa cga aat ggt	44547
Ser Pro Ile Leu Gly	Tyr His Val Glu Arg	Lys Glu Arg Asn Gly	
14795	14800	14805	
att ctc tgg cag act	gtg agc aaa gct tta	gta cca ggc aac att	44592
Ile Leu Trp Gln Thr	Val Ser Lys Ala Leu	Val Pro Gly Asn Ile	
14810	14815	14820	
ttc aaa tca agt gga	ctt aca gat ggt att	gct tat gag ttc cg	44637
Phe Lys Ser Ser Gly	Leu Thr Asp Gly Ile	Ala Tyr Glu Phe Arg	
14825	14830	14835	
gtg att gca gaa aac	atg gca ggc aaa agt	aag cca agc aag cca	44682
Val Ile Ala Glu Asn	Met Ala Gly Lys Ser	Lys Pro Ser Lys Pro	

14840	14845	14850	
tca gaa cct atg ttg Ser Glu Pro Met Leu 14855	gct ctg gat ccc att Ala Leu Asp Pro Ile 14860	gac cca cct gga aaa Asp Pro Pro Gly Lys 14865	44727
cca gta cct cta aat Pro Val Pro Leu Asn 14870	att aca aga cac aca Ile Thr Arg His Thr 14875	gta aca ctt aaa tgg Val Thr Leu Lys Trp 14880	44772
gct aag cct gaa tat Ala Lys Pro Glu Tyr 14885	act ggg ggc ttt aaa Thr Gly Gly Phe Lys 14890	att acc agt tat atc Ile Thr Ser Tyr Ile 14895	44817
gtt gaa aag aga gac Val Glu Lys Arg Asp 14900	ctt cct aat gga cgg Leu Pro Asn Gly Arg 14905	tgg ctg aag gcc aac Trp Leu Lys Ala Asn 14910	44862
ttc agc aac att ttg Phe Ser Asn Ile Leu 14915	gag aat gaa ttt aca Glu Asn Glu Phe Thr 14920	gtc agt ggc cta aca Val Ser Gly Leu Thr 14925	44907
gaa gat gct gca tat Glu Asp Ala Ala Tyr 14930	gaa ttc cgt gtg atc Glu Phe Arg Val Ile 14935	gcc aaa aat gct gca Ala Lys Asn Ala Ala 14940	44952
ggg gcc atc agt cca Gly Ala Ile Ser Pro 14945	cca tct gag cca tct Pro Ser Glu Pro Ser 14950	gat gct atc act tgc Asp Ala Ile Thr Cys 14955	44997
agg gat gat gtt gag Arg Asp Asp Val Glu 14960	gca cca aag ata aag Ala Pro Lys Ile Lys 14965	gtg gat gtt aaa ttt Val Asp Val Lys Phe 14970	45042
aag gac acg gtt ata Lys Asp Thr Val Ile 14975	tta aaa gca ggt gaa Leu Lys Ala Gly Glu 14980	gca ttc aga ctg gaa Ala Phe Arg Leu Glu 14985	45087
gct gat gtt tca ggc Ala Asp Val Ser Gly 14990	cgc cca cct cca aca Arg Pro Pro Pro Thr 14995	atg gaa tgg agc aaa Met Glu Trp Ser Lys 15000	45132
gat gga aaa gag ctg Asp Gly Lys Glu Leu 15005	gaa ggc aca gca aag Glu Gly Thr Ala Lys 15010	tta gaa ata aaa att Leu Glu Ile Lys Ile 15015	45177
gca gat ttc tct act Ala Asp Phe Ser Thr 15020	aat ctg gta aac aaa Asn Leu Val Asn Lys 15025	gat tca aca aga agg Asp Ser Thr Arg Arg 15030	45222
gat agt ggt gcc tat Asp Ser Gly Ala Tyr 15035	acc ctt aca gcg act Thr Leu Thr Ala Thr 15040	aat cct ggt ggc ttt Asn Pro Gly Gly Phe 15045	45267
gct aaa cac att ttc Ala Lys His Ile Phe 15050	aat gtc aaa gtt ctt Asn Val Lys Val Leu 15055	gac aga cca ggc cca Asp Arg Pro Gly Pro 15060	45312

cct gaa gga cct ttg	gct gta act gaa gtg	aca tca gaa aag tgt	45357
Pro Glu Gly Pro Leu	Ala Val Thr Glu Val	Thr Ser Glu Lys Cys	
15065	15070	15075	
gta cta tca tgg ttc	cct cca ctg gat gat	gga ggt gcc aaa att	45402
Val Leu Ser Trp Phe	Pro Pro Leu Asp Asp	Gly Gly Ala Lys Ile	
15080	15085	15090	
gat cat tac ata gta	cag aaa cgt gaa acc	agc aga ttg gca tgg	45447
Asp His Tyr Ile Val	Gln Lys Arg Glu Thr	Ser Arg Leu Ala Trp	
15095	15100	15105	
aca aat gta gcc tca	gaa gtc caa gta aca	aag cta aag gtc act	45492
Thr Asn Val Ala Ser	Glu Val Gln Val Thr	Lys Leu Lys Val Thr	
15110	15115	15120	
aaa ctc ttg aaa ggc	aat gaa tac ata ttc	cgt gtc atg gct gta	45537
Lys Leu Leu Lys Gly	Asn Glu Tyr Ile Phe	Arg Val Met Ala Val	
15125	15130	15135	
aat aaa tat gga gtg	gga gag cca ctg gaa	tca gag cct gtg ctt	45582
Asn Lys Tyr Gly Val	Gly Glu Pro Leu Glu	Ser Glu Pro Val Leu	
15140	15145	15150	
gca gtg aat cct tat	gga ccc cct gat ccg	ccc aaa aac cct gaa	45627
Ala Val Asn Pro Tyr	Gly Pro Pro Asp Pro	Pro Lys Asn Pro Glu	
15155	15160	15165	
gtg aca act att act	aaa gat tcg atg gtt	gtc tgc tgg gga cat	45672
Val Thr Thr Ile Thr	Lys Asp Ser Met Val	Val Cys Trp Gly His	
15170	15175	15180	
cct gat tct gat ggt	gga agt gaa atc atc	aat tat att gtg gaa	45717
Pro Asp Ser Asp Gly	Gly Ser Glu Ile Ile	Asn Tyr Ile Val Glu	
15185	15190	15195	
cgg cgt gat aaa gct	ggc caa cgc tgg att	aaa tgc aac aaa aaa	45762
Arg Arg Asp Lys Ala	Gly Gln Arg Trp Ile	Lys Cys Asn Lys Lys	
15200	15205	15210	
act ctt act gat tta	aga tat aaa gtg tct	gga ctg aca gaa gga	45807
Thr Leu Thr Asp Leu	Arg Tyr Lys Val Ser	Gly Leu Thr Glu Gly	
15215	15220	15225	
cat gaa tat gag ttc	agg att atg gct gaa	aat gct gct gga att	45852
His Glu Tyr Glu Phe	Arg Ile Met Ala Glu	Asn Ala Ala Gly Ile	
15230	15235	15240	
agt gca cca agt cct	acc agt cca ttt tac	aag gct tgt gac act	45897
Ser Ala Pro Ser Pro	Thr Ser Pro Phe Tyr	Lys Ala Cys Asp Thr	
15245	15250	15255	
gtg ttt aaa cct gga	cca cca ggt aac cca	cgt gtt ctg gat aca	45942
Val Phe Lys Pro Gly	Pro Pro Gly Asn Pro	Arg Val Leu Asp Thr	
15260	15265	15270	
agc aga tca tcc att	tca atc gct tgg aat	aaa cct atc tat gat	45987
Ser Arg Ser Ser Ile	Ser Ile Ala Trp Asn	Lys Pro Ile Tyr Asp	

15275	15280	15285	
ggt ggt tca gaa atc Gly Gly Ser Glu Ile 15290	act ggg tat atg gtt Thr Gly Tyr Met Val 15295	gag att gcc ctg cca Glu Ile Ala Leu Pro 15300	46032
gag gaa gat gaa tgg Glu Glu Asp Glu Trp 15305	cag att gtc act cca Gln Ile Val Thr Pro 15310	cca gca gga ctc aag Pro Ala Gly Leu Lys 15315	46077
gca act tcg tat act Ala Thr Ser Tyr Thr 15320	atc act ggc ctc aca Ile Thr Gly Leu Thr 15325	gag aat cag gaa tat Glu Asn Gln Glu Tyr 15330	46122
aag atc cgc atc tat Lys Ile Arg Ile Tyr 15335	gcc atg aat tcc gaa Ala Met Asn Ser Glu 15340	gga ctt ggg gaa cct Gly Leu Gly Glu Pro 15345	46167
gcc ctt gtt cct gga Ala Leu Val Pro Gly 15350	act cca aag gct gaa Thr Pro Lys Ala Glu 15355	gac aga atg ctg cct Asp Arg Met Leu Pro 15360	46212
cca gaa att gaa ctg Pro Glu Ile Glu Leu 15365	gat gct gac ctg cgc Asp Ala Asp Leu Arg 15370	aaa gtt gtt act ata Lys Val Val Thr Ile 15375	46257
agg gcc tgc tgc acc Arg Ala Cys Cys Thr 15380	ctg aga ctt ttt gtt Leu Arg Leu Phe Val 15385	ccc atc aaa gga agg Pro Ile Lys Gly Arg 15390	46302
cct gac cct gag gtg Pro Asp Pro Glu Val 15395	aag tgg gcc cgg gac Lys Trp Ala Arg Asp 15400	cat gga gaa tct tta His Gly Glu Ser Leu 15405	46347
gat aaa gct agc atc Asp Lys Ala Ser Ile 15410	gaa tcc gca agc tct Glu Ser Ala Ser Ser 15415	tac acc ctg ctt att Tyr Thr Leu Leu Ile 15420	46392
gtt gga aat gta aac Val Gly Asn Val Asn 15425	aga ttt gac agt ggc Arg Phe Asp Ser Gly 15430	aaa tat ata cta act Lys Tyr Ile Leu Thr 15435	46437
gta gaa aat agt tca Val Glu Asn Ser Ser 15440	ggc agc aag tct gca Gly Ser Lys Ser Ala 15445	ttt gtc aat gtt aga Phe Val Asn Val Arg 15450	46482
gtt ctc gat aca cca Val Leu Asp Thr Pro 15455	ggc ccc cca cag gat Gly Pro Pro Gln Asp 15460	ctg aag gta aaa gag Leu Lys Val Lys Glu 15465	46527
gtc act aag aca tct Val Thr Lys Thr Ser 15470	gtc aca ctc aca tgg Val Thr Leu Thr Trp 15475	gac cca cct ctc ctt Asp Pro Pro Leu Leu 15480	46572
gat gga ggt tca aaa Asp Gly Gly Ser Lys 15485	atc aag aac tat att Ile Lys Asn Tyr Ile 15490	gtt gaa aag cgg gaa Val Glu Lys Arg Glu 15495	46617

tca aca aga aaa gca	tat tca act gtt gca	aca aac tgc cac aag	46662
Ser Thr Arg Lys Ala	Tyr Ser Thr Val Ala	Thr Asn Cys His Lys	
15500	15505	15510	
act tcc tgg aag gta	gac cag ctt caa gaa	ggc tgt agc tac tat	46707
Thr Ser Trp Lys Val	Asp Gln Leu Gln Glu	Gly Cys Ser Tyr Tyr	
15515	15520	15525	
ttc agg gtt ctc gca	gaa aat gaa tat ggc	att ggg ctg cct gct	46752
Phe Arg Val Leu Ala	Glu Asn Glu Tyr Gly	Ile Gly Leu Pro Ala	
15530	15535	15540	
gaa acc gca gaa tct	gtg aaa gca tca gaa	cga cct ctt cct cca	46797
Glu Thr Ala Glu Ser	Val Lys Ala Ser Glu	Arg Pro Leu Pro Pro	
15545	15550	15555	
gga aaa ata act ttg	atg gat gtc aca aga	aat agt gtg tca ctc	46842
Gly Lys Ile Thr Leu	Met Asp Val Thr Arg	Asn Ser Val Ser Leu	
15560	15565	15570	
tct tgg gag aaa cca	gag cat gat gga ggc	agc cga att cta ggc	46887
Ser Trp Glu Lys Pro	Glu His Asp Gly Gly	Ser Arg Ile Leu Gly	
15575	15580	15585	
tac att gtg gag atg	cag acc aaa ggc agt	gac aaa tgg gcc acg	46932
Tyr Ile Val Glu Met	Gln Thr Lys Gly Ser	Asp Lys Trp Ala Thr	
15590	15595	15600	
tgt gcc aca gtc aag	gtc act gaa gcc act	atc act gga tta att	46977
Cys Ala Thr Val Lys	Val Thr Glu Ala Thr	Ile Thr Gly Leu Ile	
15605	15610	15615	
cag ggt gaa gaa tac	tct ttc cgt gtt tca	gct cag aat gaa aag	47022
Gln Gly Glu Glu Tyr	Ser Phe Arg Val Ser	Ala Gln Asn Glu Lys	
15620	15625	15630	
ggc atc agt gat cct	aga caa ctg agt gtg	cca gtg atc gcc aaa	47067
Gly Ile Ser Asp Pro	Arg Gln Leu Ser Val	Pro Val Ile Ala Lys	
15635	15640	15645	
gat ctt gtc att cca	cca gcc ttc aaa ctc	ctg ttc aat act ttc	47112
Asp Leu Val Ile Pro	Pro Ala Phe Lys Leu	Leu Phe Asn Thr Phe	
15650	15655	15660	
act gta ctg gca ggt	gaa gac cta aaa gtt	gat gtt cca ttc att	47157
Thr Val Leu Ala Gly	Glu Asp Leu Lys Val	Asp Val Pro Phe Ile	
15665	15670	15675	
ggc cgc cct acc cca	gct gta acc tgg cat	aaa gat aat gta cca	47202
Gly Arg Pro Thr Pro	Ala Val Thr Trp His	Lys Asp Asn Val Pro	
15680	15685	15690	
ctg aag cag aca act	aga gta aat gca gag	agc aca gaa aat aat	47247
Leu Lys Gln Thr Thr	Arg Val Asn Ala Glu	Ser Thr Glu Asn Asn	
15695	15700	15705	
tca cta ctg aca ata	aag gac gcc tgc cga	gaa gat gtt ggc cat	47292
Ser Leu Leu Thr Ile	Lys Asp Ala Cys Arg	Glu Asp Val Gly His	

15710	15715	15720	
tat gtg gtt aaa ctg Tyr Val Val Lys Leu 15725	act aac tca gct ggt Thr Asn Ser Ala Gly 15730	gaa gct att gaa acc Glu Ala Ile Glu Thr 15735	47337
ctt aat gtt atc gtt Leu Asn Val Ile Val 15740	ctt gac aaa cca ggg Leu Asp Lys Pro Gly 15745	cct cca act gga cca Pro Pro Thr Gly Pro 15750	47382
gtt aaa atg gat gaa Val Lys Met Asp Glu 15755	gtg aca gct gat agt Val Thr Ala Asp Ser 15760	att act ctt tcc tgg Ile Thr Leu Ser Trp 15765	47427
ggc cca ccc aag tat Gly Pro Pro Lys Tyr 15770	gat ggc gga agt tct Asp Gly Gly Ser Ser 15775	atc aat aat tac att Ile Asn Asn Tyr Ile 15780	47472
gtt gag aaa cgg gac Val Glu Lys Arg Asp 15785	act tcc aca acc acc Thr Ser Thr Thr Thr 15790	tgg caa att gta tca Trp Gln Ile Val Ser 15795	47517
gct aca gtt gca agg Ala Thr Val Ala Arg 15800	aca aca ata aag gct Thr Thr Ile Lys Ala 15805	tgc aga ctg aag act Cys Arg Leu Lys Thr 15810	47562
gga tgt gaa tat cag Gly Cys Glu Tyr Gln 15815	ttt aga att gca gct Phe Arg Ile Ala Ala 15820	gaa aac aga tat ggg Glu Asn Arg Tyr Gly 15825	47607
aag agt acc tac ctc Lys Ser Thr Tyr Leu 15830	aat tca gag cct act Asn Ser Glu Pro Thr 15835	gta gcc caa tat cca Val Ala Gln Tyr Pro 15840	47652
ttc aaa gtt cct ggt Phe Lys Val Pro Gly 15845	cct cct ggc act cca Pro Pro Gly Thr Pro 15850	gtt gtc aca ctg tcc Val Val Thr Leu Ser 15855	47697
tcc agg gac agc atg Ser Arg Asp Ser Met 15860	gaa gta caa tgg aat Glu Val Gln Trp Asn 15865	gag cca atc agt gat Glu Pro Ile Ser Asp 15870	47742
gga gga agt aga gtc Gly Gly Ser Arg Val 15875	att ggc tat cat cta Ile Gly Tyr His Leu 15880	gaa cgc aag gaa aga Glu Arg Lys Glu Arg 15885	47787
aat agc atc ctc tgg Asn Ser Ile Leu Trp 15890	gtt aag ttg aat aaa Val Lys Leu Asn Lys 15895	aca cct att cct caa Thr Pro Ile Pro Gln 15900	47832
acc aag ttt aag aca Thr Lys Phe Lys Thr 15905	act ggc ctt gaa gaa Thr Gly Leu Glu Glu 15910	ggt gtt gaa tat gaa Gly Val Glu Tyr Glu 15915	47877
ttt aga gtc tct gca Phe Arg Val Ser Ala 15920	gag aac atc gtg ggc Glu Asn Ile Val Gly 15925	att ggc aag ccg agt Ile Gly Lys Pro Ser 15930	47922

aaa gta tca gaa tgt	tat gtg gct cgt gac	cca tgt gat cca cca	47967
Lys Val Ser Glu Cys	Tyr Val Ala Arg Asp	Pro Cys Asp Pro Pro	
15935	15940	15945	
gga cgg cca gag gca	atc att gtc aca agg	aat tct gtg act ctt	48012
Gly Arg Pro Glu Ala	Ile Ile Val Thr Arg	Asn Ser Val Thr Leu	
15950	15955	15960	
cag tgg aag aaa ccc	acc tat gac ggt gga	agc aag atc act ggt	48057
Gln Trp Lys Lys Pro	Thr Tyr Asp Gly Gly	Ser Lys Ile Thr Gly	
15965	15970	15975	
tat att gtt gag aag	aaa gaa tta cct gag	ggc cgt tgg atg aaa	48102
Tyr Ile Val Glu Lys	Lys Glu Leu Pro Glu	Gly Arg Trp Met Lys	
15980	15985	15990	
gcc agt ttt aca aat	att att gac act cat	ttt gaa gta act ggc	48147
Ala Ser Phe Thr Asn	Ile Ile Asp Thr His	Phe Glu Val Thr Gly	
15995	16000	16005	
cta gtt gaa gat cac	aga tat gag ttc cgg	gtt ata gcc cga aat	48192
Leu Val Glu Asp His	Arg Tyr Glu Phe Arg	Val Ile Ala Arg Asn	
16010	16015	16020	
gcc gca gga gtg ttt	agt gag cct tca gaa	agc aca gga gca ata	48237
Ala Ala Gly Val Phe	Ser Glu Pro Ser Glu	Ser Thr Gly Ala Ile	
16025	16030	16035	
aca gct aga gat gag	gta gat cca cca cga	ata agt atg gat cca	48282
Thr Ala Arg Asp Glu	Val Asp Pro Pro Arg	Ile Ser Met Asp Pro	
16040	16045	16050	
aaa tac aaa gac aca	atc gtg gtt cat gct	ggt gaa tca ttc aag	48327
Lys Tyr Lys Asp Thr	Ile Val Val His Ala	Gly Glu Ser Phe Lys	
16055	16060	16065	
gtt gat gca gat att	tat ggc aaa cca ata	cca acc att cag tgg	48372
Val Asp Ala Asp Ile	Tyr Gly Lys Pro Ile	Pro Thr Ile Gln Trp	
16070	16075	16080	
ata aaa ggt gat cag	gag ctt tca aac aca	gct cga tta gaa ata	48417
Ile Lys Gly Asp Gln	Glu Leu Ser Asn Thr	Ala Arg Leu Glu Ile	
16085	16090	16095	
aag agc acc gac ttt	gcc acc agt ctc agt	gta aaa gat gca gta	48462
Lys Ser Thr Asp Phe	Ala Thr Ser Leu Ser	Val Lys Asp Ala Val	
16100	16105	16110	
cgt gtc gac agt gga	aat tac ata ctg aag	gcc aaa aat gtt gca	48507
Arg Val Asp Ser Gly	Asn Tyr Ile Leu Lys	Ala Lys Asn Val Ala	
16115	16120	16125	
gga gaa aga tca gtt	act gtg aat gtc aag	gtt ctt gac aga cca	48552
Gly Glu Arg Ser Val	Thr Val Asn Val Lys	Val Leu Asp Arg Pro	
16130	16135	16140	
ggg cca cct gaa gga	cct gtt gtt atc tca	gga gtt aca gca gaa	48597
Gly Pro Pro Glu Gly	Pro Val Val Ile Ser	Gly Val Thr Ala Glu	

16145	16150	16155	
aaa tgc aca cta gct Lys Cys Thr Leu Ala 16160	tgg aaa ccc cca ctt Trp Lys Pro Pro Leu 16165	cag gat ggt ggg agt Gln Asp Gly Gly Ser 16170	48642
gac atc ata aat tat Asp Ile Ile Asn Tyr 16175	att gtg gaa agg aga Ile Val Glu Arg Arg 16180	gaa acc agc cgc tta Glu Thr Ser Arg Leu 16185	48687
gtt tgg act gtg gtt Val Trp Thr Val Val 16190	gat gcc aat gtg cag Asp Ala Asn Val Gln 16195	act ctc agc tgc aag Thr Leu Ser Cys Lys 16200	48732
gtt act aag ctt ctt Val Thr Lys Leu Leu 16205	gaa ggc aat gaa tat Glu Gly Asn Glu Tyr 16210	act ttc cgt ata atg Thr Phe Arg Ile Met 16215	48777
gca gta aac aaa tat Ala Val Asn Lys Tyr 16220	ggt gtt ggt gaa cct Gly Val Gly Glu Pro 16225	ctt gaa tct gag cca Leu Glu Ser Glu Pro 16230	48822
gta gtt gcc aag aat Val Val Ala Lys Asn 16235	cca ttt gta gta cca Pro Phe Val Val Pro 16240	gat gca cca aaa gct Asp Ala Pro Lys Ala 16245	48867
cca gaa gtc aca aca Pro Glu Val Thr Thr 16250	gtg acc aag gac tca Val Thr Lys Asp Ser 16255	atg att gtt gta tgg Met Ile Val Val Trp 16260	48912
gaa aga cca gca tct Glu Arg Pro Ala Ser 16265	gat ggt ggt agt gaa Asp Gly Gly Ser Glu 16270	att ctt gga tat gtt Ile Leu Gly Tyr Val 16275	48957
ctt gag aaa cgg gat Leu Glu Lys Arg Asp 16280	aaa gaa ggc att aga Lys Glu Gly Ile Arg 16285	tgg aca aga tgc cat Trp Thr Arg Cys His 16290	49002
aag cgt ctg att gga Lys Arg Leu Ile Gly 16295	gag ttg cgc ctg aga Glu Leu Arg Leu Arg 16300	gtt act gga ctc ata Val Thr Gly Leu Ile 16305	49047
gaa aat cac gat tat Glu Asn His Asp Tyr 16310	gag ttc aga gtt tct Glu Phe Arg Val Ser 16315	gct gag aat gct gct Ala Glu Asn Ala Ala 16320	49092
gga ctt agt gaa cca Gly Leu Ser Glu Pro 16325	agc cct cct tct gct Ser Pro Pro Ser Ala 16330	tac caa aag gct tgt Tyr Gln Lys Ala Cys 16335	49137
gat cct att tat aaa Asp Pro Ile Tyr Lys 16340	cca gga ccc cca aac Pro Gly Pro Pro Asn 16345	aac ccc aaa gtc ata Asn Pro Lys Val Ile 16350	49182
gac ata acc aga tct Asp Ile Thr Arg Ser 16355	tca gta ttc ctt tct Ser Val Phe Leu Ser 16360	tgg agc aaa cca ata Trp Ser Lys Pro Ile 16365	49227

tat gat ggt ggc tgt	gaa att caa gga tac	att gtt gaa aaa tgt	49272
Tyr Asp Gly Gly Cys	Glu Ile Gln Gly Tyr	Ile Val Glu Lys Cys	
16370	16375	16380	
gat gtg aat gtt ggt	gaa tgg aca atg tgc	act cca cca aca gga	49317
Asp Val Asn Val Gly	Glu Trp Thr Met Cys	Thr Pro Pro Thr Gly	
16385	16390	16395	
att aat aaa aca aac	ata gaa gta gag aag	ctg ttg gaa aag cat	49362
Ile Asn Lys Thr Asn	Ile Glu Val Glu Lys	Leu Leu Glu Lys His	
16400	16405	16410	
gaa tac aac ttc cgt	atc tgt gct att aat	aaa gct gga gtt gga	49407
Glu Tyr Asn Phe Arg	Ile Cys Ala Ile Asn	Lys Ala Gly Val Gly	
16415	16420	16425	
gaa cat gct gac gtc	cct gga cct att ata	gtt gaa gaa aaa tta	49452
Glu His Ala Asp Val	Pro Gly Pro Ile Ile	Val Glu Glu Lys Leu	
16430	16435	16440	
gaa gca cca gac att	gat ctt gac cta gaa	cta agg aaa atc ata	49497
Glu Ala Pro Asp Ile	Asp Leu Asp Leu Glu	Leu Arg Lys Ile Ile	
16445	16450	16455	
aat ata agg gca ggt	ggc tcc tta agg tta	ttt gtt cct ata aaa	49542
Asn Ile Arg Ala Gly	Gly Ser Leu Arg Leu	Phe Val Pro Ile Lys	
16460	16465	16470	
ggt cgt cct aca cca	gaa gtt aaa tgg gga	aag gtg gat ggt gaa	49587
Gly Arg Pro Thr Pro	Glu Val Lys Trp Gly	Lys Val Asp Gly Glu	
16475	16480	16485	
atc cga gat gca gct	ata att gat gtc act	agc agt ttc acc tct	49632
Ile Arg Asp Ala Ala	Ile Ile Asp Val Thr	Ser Ser Phe Thr Ser	
16490	16495	16500	
ctt gtt ctt gac aat	gtc aac cga tat gat	agt gga aaa tat acg	49677
Leu Val Leu Asp Asn	Val Asn Arg Tyr Asp	Ser Gly Lys Tyr Thr	
16505	16510	16515	
ctt aca tta gaa aac	agc agt gga aca aag	tct gcc ttt gtt act	49722
Leu Thr Leu Glu Asn	Ser Ser Gly Thr Lys	Ser Ala Phe Val Thr	
16520	16525	16530	
gtg aga gtt ctg gac	acg cca agt cca cct	gtt aac ctg aaa gtc	49767
Val Arg Val Leu Asp	Thr Pro Ser Pro Pro	Val Asn Leu Lys Val	
16535	16540	16545	
aca gaa atc acc aaa	gac tca gta tca att	aca tgg gaa cct cct	49812
Thr Glu Ile Thr Lys	Asp Ser Val Ser Ile	Thr Trp Glu Pro Pro	
16550	16555	16560	
ttg ttg gat ggg gga	tcc aaa ata aaa aat	tac att gtt gag aaa	49857
Leu Leu Asp Gly Gly	Ser Lys Ile Lys Asn	Tyr Ile Val Glu Lys	
16565	16570	16575	
cgt gaa gcc aca aga	aaa tca tat gct gct	gtt gta act aac tgc	49902
Arg Glu Ala Thr Arg	Lys Ser Tyr Ala Ala	Val Val Thr Asn Cys	

16580	16585	16590	
cat aag aat tct tgg His Lys Asn Ser Trp 16595	aaa atc gat cag ctc Lys Ile Asp Gln Leu 16600	caa gaa ggt tgc agt Gln Glu Gly Cys Ser 16605	49947
tat tac ttt aga gtc Tyr Tyr Phe Arg Val 16610	aca gct gag aat gag Thr Ala Glu Asn Glu 16615	tat ggt att ggc ctt Tyr Gly Ile Gly Leu 16620	49992
cct gcc cag act gct Pro Ala Gln Thr Ala 16625	gat cca att aag gtt Asp Pro Ile Lys Val 16630	gca gaa gtg cca caa Ala Glu Val Pro Gln 16635	50037
cct cct gga aaa ata Pro Pro Gly Lys Ile 16640	act gtg gat gat gtc Thr Val Asp Asp Val 16645	acc aga aac agt gtc Thr Arg Asn Ser Val 16650	50082
tct ctg agt tgg aca Ser Leu Ser Trp Thr 16655	aaa cct gaa cat gat Lys Pro Glu His Asp 16660	ggt ggc agt aaa atc Gly Gly Ser Lys Ile 16665	50127
att cag tat att gtg Ile Gln Tyr Ile Val 16670	gaa atg caa gct aaa Glu Met Gln Ala Lys 16675	cac agt gag aaa tgg His Ser Glu Lys Trp 16680	50172
tca gag tgt gct cga Ser Glu Cys Ala Arg 16685	gta aag tct ctt cag Val Lys Ser Leu Gln 16690	gca gta att acc aac Ala Val Ile Thr Asn 16695	50217
cta act caa ggg gaa Leu Thr Gln Gly Glu 16700	gaa tat ctt ttt aga Glu Tyr Leu Phe Arg 16705	gtt gtt gct gta aat Val Val Ala Val Asn 16710	50262
gaa aag ggg aga agt Glu Lys Gly Arg Ser 16715	gat cct cgg tcc ctt Asp Pro Arg Ser Leu 16720	gca gtt cca ata gtt Ala Val Pro Ile Val 16725	50307
gcc aaa gat ctg gta Ala Lys Asp Leu Val 16730	att gag cca gat gta Ile Glu Pro Asp Val 16735	aaa cct gca ttc agt Lys Pro Ala Phe Ser 16740	50352
agt tac agt gta cag Ser Tyr Ser Val Gln 16745	gtt ggc caa gat ttg Val Gly Gln Asp Leu 16750	aaa ata gaa gtg cca Lys Ile Glu Val Pro 16755	50397
att tct gga cgt cct Ile Ser Gly Arg Pro 16760	aag cca acc att acc Lys Pro Thr Ile Thr 16765	tgg act aaa gat ggt Trp Thr Lys Asp Gly 16770	50442
ctc cca ctg aag cag Leu Pro Leu Lys Gln 16775	acc aca aga atc aat Thr Thr Arg Ile Asn 16780	gtt acc gat tca ctg Val Thr Asp Ser Leu 16785	50487
gat ctc acc aca ctc Asp Leu Thr Thr Leu 16790	agt att aaa gaa act Ser Ile Lys Glu Thr 16795	cat aag gat gat ggt His Lys Asp Asp Gly 16800	50532

gga caa tat gga atc	aca gtt gcc aat gtt	gtt ggt cag aag aca	50577
Gly Gln Tyr Gly Ile	Thr Val Ala Asn Val	Val Gly Gln Lys Thr	
16805	16810	16815	
gca tcc atc gaa att	gta act cta gat aaa	cct gat cct cca aaa	50622
Ala Ser Ile Glu Ile	Val Thr Leu Asp Lys	Pro Asp Pro Pro Lys	
16820	16825	16830	
gga cct gtt aaa ttt	gat gac gtc agt gct	gaa agt att aca tta	50667
Gly Pro Val Lys Phe	Asp Asp Val Ser Ala	Glu Ser Ile Thr Leu	
16835	16840	16845	
tct tgg aac cct cca	tta tat aca ggg ggc	tgc caa atc acc aac	50712
Ser Trp Asn Pro Pro	Leu Tyr Thr Gly Gly	Cys Gln Ile Thr Asn	
16850	16855	16860	
tac att gtt cag aaa	aga gat aca acc acc	aca gta tgg gat gtt	50757
Tyr Ile Val Gln Lys	Arg Asp Thr Thr Thr	Thr Val Trp Asp Val	
16865	16870	16875	
gtt tct gct act gtt	gct aga act aca ctc	aaa gtg acc aaa ctg	50802
Val Ser Ala Thr Val	Ala Arg Thr Thr Leu	Lys Val Thr Lys Leu	
16880	16885	16890	
aaa act ggt aca gaa	tac caa ttt aga ata	ttt gcc gaa aac aga	50847
Lys Thr Gly Thr Glu	Tyr Gln Phe Arg Ile	Phe Ala Glu Asn Arg	
16895	16900	16905	
tat gga caa agc ttt	gcc tta gag tct gat	cca att gta gct caa	50892
Tyr Gly Gln Ser Phe	Ala Leu Glu Ser Asp	Pro Ile Val Ala Gln	
16910	16915	16920	
tat ccc tac aaa gaa	cca ggc cct cca ggt	aca cca ttt gcc aca	50937
Tyr Pro Tyr Lys Glu	Pro Gly Pro Pro Gly	Thr Pro Phe Ala Thr	
16925	16930	16935	
gcc att tcc aaa gac	tcc atg gtc ata cag	tgg cat gaa cca gtc	50982
Ala Ile Ser Lys Asp	Ser Met Val Ile Gln	Trp His Glu Pro Val	
16940	16945	16950	
aac aat ggt gga agc	ccc gtc ata ggt tac	cac ctg gag aga aaa	51027
Asn Asn Gly Gly Ser	Pro Val Ile Gly Tyr	His Leu Glu Arg Lys	
16955	16960	16965	
gaa aga aac agt att	ttg tgg aca aag gtc	aac aaa act att att	51072
Glu Arg Asn Ser Ile	Leu Trp Thr Lys Val	Asn Lys Thr Ile Ile	
16970	16975	16980	
cat gac acc caa ttc	aaa gca cag aat ctt	gaa gaa ggc att gaa	51117
His Asp Thr Gln Phe	Lys Ala Gln Asn Leu	Glu Glu Gly Ile Glu	
16985	16990	16995	
tat gaa ttc aga gtg	tat gct gaa aat att	gtt ggt gta ggc aaa	51162
Tyr Glu Phe Arg Val	Tyr Ala Glu Asn Ile	Val Gly Val Gly Lys	
17000	17005	17010	
gca agc aag aat tct	gaa tgc tat gta gcc	aga gat ccc tgt gac	51207
Ala Ser Lys Asn Ser	Glu Cys Tyr Val Ala	Arg Asp Pro Cys Asp	

17015	17020	17025	
cca cca gga acc cca Pro Pro Gly Thr Pro 17030	gaa cca ata atg gtt Glu Pro Ile Met Val 17035	aaa aga aat gaa atc Lys Arg Asn Glu Ile 17040	51252
act tta cag tgg acc Thr Leu Gln Trp Thr 17045	aaa cct gtg tat gat Lys Pro Val Tyr Asp 17050	ggt gga agt atg att Gly Gly Ser Met Ile 17055	51297
aca ggc tac att gta Thr Gly Tyr Ile Val 17060	gag aaa cgt gat ttg Glu Lys Arg Asp Leu 17065	cct gat ggt cgt tgg Pro Asp Gly Arg Trp 17070	51342
atg aaa gct agc ttt Met Lys Ala Ser Phe 17075	aca aat gtc att gaa Thr Asn Val Ile Glu 17080	act caa ttt act gtg Thr Gln Phe Thr Val 17085	51387
tca ggt ctt act gaa Ser Gly Leu Thr Glu 17090	gat caa aga tat gaa Asp Gln Arg Tyr Glu 17095	ttc aga gtc att gca Phe Arg Val Ile Ala 17100	51432
aag aat gca gct ggt Lys Asn Ala Ala Gly 17105	gca ata agt aaa ccc Ala Ile Ser Lys Pro 17110	tct gac agt act gga Ser Asp Ser Thr Gly 17115	51477
cca ata act gcc aag Pro Ile Thr Ala Lys 17120	gat gag gtt gaa ctc Asp Glu Val Glu Leu 17125	cca aga att tca atg Pro Arg Ile Ser Met 17130	51522
gat cca aaa ttc aga Asp Pro Lys Phe Arg 17135	gac aca att gtg gta Asp Thr Ile Val Val 17140	aat gct gga gaa aca Asn Ala Gly Glu Thr 17145	51567
ttc aga ctt gag gct Phe Arg Leu Glu Ala 17150	gat gtc cat gga aag Asp Val His Gly Lys 17155	ccc cta cct acc att Pro Leu Pro Thr Ile 17160	51612
gag tgg tta aga gga Glu Trp Leu Arg Gly 17165	gat aag gaa att gaa Asp Lys Glu Ile Glu 17170	gaa tct gct aga tgt Glu Ser Ala Arg Cys 17175	51657
gaa ata aag aac aca Glu Ile Lys Asn Thr 17180	gat ttc aag gct tta Asp Phe Lys Ala Leu 17185	ctt att gta aaa gat Leu Ile Val Lys Asp 17190	51702
gca att aga att gat Ala Ile Arg Ile Asp 17195	ggt ggg cag tat att Gly Gly Gln Tyr Ile 17200	tta aga gct tcc aat Leu Arg Ala Ser Asn 17205	51747
gtt gca ggt tct aag Val Ala Gly Ser Lys 17210	tca ttc cca gta aat Ser Phe Pro Val Asn 17215	gta aaa gta tta gat Val Lys Val Leu Asp 17220	51792
aga cca gga cct cca Arg Pro Gly Pro Pro 17225	gaa ggg cca gtc cag Glu Gly Pro Val Gln 17230	gtt act gga gtc act Val Thr Gly Val Thr 17235	51837

tct gaa aaa tgc tct	tta aca tgg tct cca	cca ctt caa gat ggt	51882
Ser Glu Lys Cys Ser	Leu Thr Trp Ser Pro	Pro Leu Gln Asp Gly	
17240	17245	17250	
ggc agt gac att tct	cac tat gtt gtt gaa	aag cga gaa acc agt	51927
Gly Ser Asp Ile Ser	His Tyr Val Val Glu	Lys Arg Glu Thr Ser	
17255	17260	17265	
cga ctt gcc tgg act	gtt gtt gct tca gaa	gtt gtg acc aat tct	51972
Arg Leu Ala Trp Thr	Val Val Ala Ser Glu	Val Val Thr Asn Ser	
17270	17275	17280	
ctg aaa gtt acc aaa	ctc tta gaa ggt aat	gaa tat gtt ttc cgt	52017
Leu Lys Val Thr Lys	Leu Leu Glu Gly Asn	Glu Tyr Val Phe Arg	
17285	17290	17295	
ata atg gct gtc aac	aaa tat ggt gtt gga	gag cct ttg gaa tct	52062
Ile Met Ala Val Asn	Lys Tyr Gly Val Gly	Glu Pro Leu Glu Ser	
17300	17305	17310	
gca cca gta cta atg	aaa aat cca ttt gtg	ctt cct gga cca cca	52107
Ala Pro Val Leu Met	Lys Asn Pro Phe Val	Leu Pro Gly Pro Pro	
17315	17320	17325	
aaa agc ttg gaa gtc	aca aat att gcc aaa	gac tcc atg acc gtc	52152
Lys Ser Leu Glu Val	Thr Asn Ile Ala Lys	Asp Ser Met Thr Val	
17330	17335	17340	
tgt tgg aac cgt cca	gat agt gat ggt gga	agt gag att att ggt	52197
Cys Trp Asn Arg Pro	Asp Ser Asp Gly Gly	Ser Glu Ile Ile Gly	
17345	17350	17355	
tac att gta gag aaa	aga gac aga agt ggc	att cga tgg ata aaa	52242
Tyr Ile Val Glu Lys	Arg Asp Arg Ser Gly	Ile Arg Trp Ile Lys	
17360	17365	17370	
tgt aat aaa cgc cgc	att aca gat ttg cgt	cta aga gtg aca gga	52287
Cys Asn Lys Arg Arg	Ile Thr Asp Leu Arg	Leu Arg Val Thr Gly	
17375	17380	17385	
tta aca gaa gat cat	gag tat gaa ttc agg	gtc tct gca gaa aat	52332
Leu Thr Glu Asp His	Glu Tyr Glu Phe Arg	Val Ser Ala Glu Asn	
17390	17395	17400	
gct gct gga gtt ggg	gaa cca agt cca gct	aca gtt tat tat aaa	52377
Ala Ala Gly Val Gly	Glu Pro Ser Pro Ala	Thr Val Tyr Tyr Lys	
17405	17410	17415	
gcc tgt gat cct gtg	ttc aaa cct ggc cca	cct acc aat gca cac	52422
Ala Cys Asp Pro Val	Phe Lys Pro Gly Pro	Pro Thr Asn Ala His	
17420	17425	17430	
att gta gac acc act	aaa aat tca atc aca	ctt gcc tgg ggt aaa	52467
Ile Val Asp Thr Thr	Lys Asn Ser Ile Thr	Leu Ala Trp Gly Lys	
17435	17440	17445	
ccc atc tat gat ggc	ggc agt gag atc ttg	gga tat gta gta gaa	52512
Pro Ile Tyr Asp Gly	Gly Ser Glu Ile Leu	Gly Tyr Val Val Glu	

17450	17455	17460	
atc tgt aaa gca gat Ile Cys Lys Ala Asp 17465	gaa gaa gaa tgg caa Glu Glu Glu Trp Gln 17470	ata gtt act cca cag Ile Val Thr Pro Gln 17475	52557
act ggc ctg aga gtc Thr Gly Leu Arg Val 17480	act cga ttt gaa att Thr Arg Phe Glu Ile 17485	tca aaa ctc act gaa Ser Lys Leu Thr Glu 17490	52602
cac caa gag tat aaa His Gln Glu Tyr Lys 17495	ata cga gtc tgt gcc Ile Arg Val Cys Ala 17500	ctc aac aaa gtt ggt Leu Asn Lys Val Gly 17505	52647
tta ggt gag gct aca Leu Gly Glu Ala Thr 17510	tca gtt cct ggt act Ser Val Pro Gly Thr 17515	gtg aaa cca gaa gat Val Lys Pro Glu Asp 17520	52692
aaa ctt gaa gca cct Lys Leu Glu Ala Pro 17525	gaa ctt gac ctt gac Glu Leu Asp Leu Asp 17530	tcc gaa tta aga aaa Ser Glu Leu Arg Lys 17535	52737
gga att gtt gta aga Gly Ile Val Val Arg 17540	gct ggt gga tct gcc Ala Gly Gly Ser Ala 17545	aga att cac att cca Arg Ile His Ile Pro 17550	52782
ttc aaa ggt cgt cca Phe Lys Gly Arg Pro 17555	atg cct gag atc act Met Pro Glu Ile Thr 17560	tgg tct cga gag gaa Trp Ser Arg Glu Glu 17565	52827
ggt gaa ttc aca gat Gly Glu Phe Thr Asp 17570	aag gtc caa att gaa Lys Val Gln Ile Glu 17575	aag gga gta aac tat Lys Gly Val Asn Tyr 17580	52872
acc caa cta tca ata Thr Gln Leu Ser Ile 17585	gat aac tgt gat aga Asp Asn Cys Asp Arg 17590	aat gat gct gga aaa Asn Asp Ala Gly Lys 17595	52917
tac att ctt aag ttg Tyr Ile Leu Lys Leu 17600	gaa aac agc agt gga Glu Asn Ser Ser Gly 17605	tca aag tct gct ttt Ser Lys Ser Ala Phe 17610	52962
gta act gtg aaa gtt Val Thr Val Lys Val 17615	ctt gac act cca gga Leu Asp Thr Pro Gly 17620	cca cca cag aat ttg Pro Pro Gln Asn Leu 17625	53007
gca gtc aaa gaa gtg Ala Val Lys Glu Val 17630	aga aaa gat tct gcc Arg Lys Asp Ser Ala 17635	ttc ctg gta tgg gag Phe Leu Val Trp Glu 17640	53052
cca ccc atc att gat Pro Pro Ile Ile Asp 17645	gga ggg gca aag gtc Gly Gly Ala Lys Val 17650	aag aac tat gtg att Lys Asn Tyr Val Ile 17655	53097
gac aaa cgt gag tca Asp Lys Arg Glu Ser 17660	acc aga aaa gcg tat Thr Arg Lys Ala Tyr 17665	gct aat gtg agt agt Ala Asn Val Ser Ser 17670	53142

aaa tgc agc aaa aca	agt ttt aaa gtg gaa	aac ctt aca gaa gga	53187
Lys Cys Ser Lys Thr	Ser Phe Lys Val Glu	Asn Leu Thr Glu Gly	
17675	17680	17685	
gcc att tat tac ttc	aga gtc atg gct gaa	aat gaa ttt gga gtt	53232
Ala Ile Tyr Tyr Phe	Arg Val Met Ala Glu	Asn Glu Phe Gly Val	
17690	17695	17700	
ggt gtt cca gtg gaa	act gtt gat gcc gtg	aaa gct gct gaa cct	53277
Gly Val Pro Val Glu	Thr Val Asp Ala Val	Lys Ala Ala Glu Pro	
17705	17710	17715	
cct tcc cca cca gga	aag gtt aca ctc act	gat gtg tcc cag acc	53322
Pro Ser Pro Pro Gly	Lys Val Thr Leu Thr	Asp Val Ser Gln Thr	
17720	17725	17730	
agt gca tca ctt atg	tgg gag aaa cct gaa	cat gat ggc ggt agc	53367
Ser Ala Ser Leu Met	Trp Glu Lys Pro Glu	His Asp Gly Gly Ser	
17735	17740	17745	
aga gtc ctg ggg tac	gtt gtt gaa atg cag	ccc aaa gga act gaa	53412
Arg Val Leu Gly Tyr	Val Val Glu Met Gln	Pro Lys Gly Thr Glu	
17750	17755	17760	
aaa tgg agc att gtg	gct gaa tcc aaa gtc	tgt aat gca gtt gtt	53457
Lys Trp Ser Ile Val	Ala Glu Ser Lys Val	Cys Asn Ala Val Val	
17765	17770	17775	
act ggt ttg agt tct	gga caa gaa tat cag	ttc cgt gtc aag gct	53502
Thr Gly Leu Ser Ser	Gly Gln Glu Tyr Gln	Phe Arg Val Lys Ala	
17780	17785	17790	
tat aat gag aaa gga	aaa agc gat cca aga	gtg ttg ggt gtt cct	53547
Tyr Asn Glu Lys Gly	Lys Ser Asp Pro Arg	Val Leu Gly Val Pro	
17795	17800	17805	
gtc ata gcc aag gac	ttg act ata cag cct	agt tta aag tta cca	53592
Val Ile Ala Lys Asp	Leu Thr Ile Gln Pro	Ser Leu Lys Leu Pro	
17810	17815	17820	
ttt aac aca tat agt	atc caa gct gga gaa	gat ctt aaa ata gaa	53637
Phe Asn Thr Tyr Ser	Ile Gln Ala Gly Glu	Asp Leu Lys Ile Glu	
17825	17830	17835	
att cca gtt ata ggc	cga cca aga cct aac	att tct tgg gtc aaa	53682
Ile Pro Val Ile Gly	Arg Pro Arg Pro Asn	Ile Ser Trp Val Lys	
17840	17845	17850	
gat ggt gag cct ctt	aaa cag aca aca aga	gta aac gtt gaa gaa	53727
Asp Gly Glu Pro Leu	Lys Gln Thr Thr Arg	Val Asn Val Glu Glu	
17855	17860	17865	
aca gct acc tca act	gtt ttg cac att aaa	gaa ggt aac aaa gat	53772
Thr Ala Thr Ser Thr	Val Leu His Ile Lys	Glu Gly Asn Lys Asp	
17870	17875	17880	
gac ttt gga aaa tac	acc gta acg gca aca	aat agt gca ggc aca	53817
Asp Phe Gly Lys Tyr	Thr Val Thr Ala Thr	Asn Ser Ala Gly Thr	

17885	17890	17895	
gca aca gaa aat ctc Ala Thr Glu Asn Leu 17900	agt gtt atc gtt tta Ser Val Ile Val Leu 17905	gaa aag cct gga cct Glu Lys Pro Gly Pro 17910	53862
cca gtt ggc cca gtt Pro Val Gly Pro Val 17915	cgg ttt gat gaa gtt Arg Phe Asp Glu Val 17920	agt gca gac ttt gta Ser Ala Asp Phe Val 17925	53907
gtc ata tct tgg gaa Val Ile Ser Trp Glu 17930	cct cca gcc tat act Pro Pro Ala Tyr Thr 17935	ggt ggc tgc caa ata Gly Gly Cys Gln Ile 17940	53952
agc aac tac att gta Ser Asn Tyr Ile Val 17945	gag aag cga gat aca Glu Lys Arg Asp Thr 17950	acc acc acc act tgg Thr Thr Thr Thr Trp 17955	53997
cac atg gta tca gca His Met Val Ser Ala 17960	aca gtt gca aga aca Thr Val Ala Arg Thr 17965	aca att aaa ata acc Thr Ile Lys Ile Thr 17970	54042
aaa ctg aaa aca ggc Lys Leu Lys Thr Gly 17975	acg gag tac cag ttt Thr Glu Tyr Gln Phe 17980	aga att ttt gct gaa Arg Ile Phe Ala Glu 17985	54087
aac agg tat gga aaa Asn Arg Tyr Gly Lys 17990	agt gcc cca ctg gat Ser Ala Pro Leu Asp 17995	tct aag gca gtt att Ser Lys Ala Val Ile 18000	54132
gta caa tat cca ttt Val Gln Tyr Pro Phe 18005	aaa gaa cct gga cca Lys Glu Pro Gly Pro 18010	cct gga act cct ttt Pro Gly Thr Pro Phe 18015	54177
gtg aca tca atc tca Val Thr Ser Ile Ser 18020	aaa gat cag atg ctt Lys Asp Gln Met Leu 18025	gtg caa tgg cat gag Val Gln Trp His Glu 18030	54222
cca gtg aat gat gga Pro Val Asn Asp Gly 18035	ggc acc aaa att att Gly Thr Lys Ile Ile 18040	ggc tac cat ctt gaa Gly Tyr His Leu Glu 18045	54267
cag aaa gaa aag aac Gln Lys Glu Lys Asn 18050	agt att tta tgg gtc Ser Ile Leu Trp Val 18055	aag tta aat aag acc Lys Leu Asn Lys Thr 18060	54312
ccc att cag gac acc Pro Ile Gln Asp Thr 18065	aaa ttc aaa aca act Lys Phe Lys Thr Thr 18070	ggg ctt gat gag ggc Gly Leu Asp Glu Gly 18075	54357
ctt gag tat gag ttc Leu Glu Tyr Glu Phe 18080	aaa gtt tct gct gaa Lys Val Ser Ala Glu 18085	aat att gtt ggc att Asn Ile Val Gly Ile 18090	54402
ggc aag cct agc aaa Gly Lys Pro Ser Lys 18095	gtg tca gaa tgc ttt Val Ser Glu Cys Phe 18100	gtt gct cgt gat cca Val Ala Arg Asp Pro 18105	54447

tgt gac cca cct ggt	cgc cct gaa gcc att	gtt att aca aga aac	54492
Cys Asp Pro Pro Gly	Arg Pro Glu Ala Ile	Val Ile Thr Arg Asn	
18110	18115	18120	
aat gtc aca ctg aaa	tgg aag aaa cct gcc	tat gat ggt ggt agc	54537
Asn Val Thr Leu Lys	Trp Lys Lys Pro Ala	Tyr Asp Gly Gly Ser	
18125	18130	18135	
aaa ata aca ggt tat	att gta gaa aag aaa	gat cta cct gat ggc	54582
Lys Ile Thr Gly Tyr	Ile Val Glu Lys Lys	Asp Leu Pro Asp Gly	
18140	18145	18150	
cgc tgg atg aaa gcc	agc ttt acc aac gta	tta gaa act gaa ttt	54627
Arg Trp Met Lys Ala	Ser Phe Thr Asn Val	Leu Glu Thr Glu Phe	
18155	18160	18165	
aca gtg agt gga ctt	gta gaa gac caa aga	tat gaa ttt aga gta	54672
Thr Val Ser Gly Leu	Val Glu Asp Gln Arg	Tyr Glu Phe Arg Val	
18170	18175	18180	
att gca aga aat gca	gct gga aac ttt agt	gaa cca tct gat agt	54717
Ile Ala Arg Asn Ala	Ala Gly Asn Phe Ser	Glu Pro Ser Asp Ser	
18185	18190	18195	
agt ggt gcc att act	gca aga gat gaa att	gat gca cca aat gcc	54762
Ser Gly Ala Ile Thr	Ala Arg Asp Glu Ile	Asp Ala Pro Asn Ala	
18200	18205	18210	
tct ctg gat cca aaa	tat aaa gat gtc atc	gtt gtt cat gca gga	54807
Ser Leu Asp Pro Lys	Tyr Lys Asp Val Ile	Val Val His Ala Gly	
18215	18220	18225	
gag act ttt gtt ctt	gaa gcc gac atc cgt	ggc aaa cct ata cct	54852
Glu Thr Phe Val Leu	Glu Ala Asp Ile Arg	Gly Lys Pro Ile Pro	
18230	18235	18240	
gat gtt gtt tgg tca	aaa gat gga aaa gaa	ctt gaa gaa aca gct	54897
Asp Val Val Trp Ser	Lys Asp Gly Lys Glu	Leu Glu Glu Thr Ala	
18245	18250	18255	
gct aga atg gaa att	aaa tct act att cag	aaa aca act ctt gtt	54942
Ala Arg Met Glu Ile	Lys Ser Thr Ile Gln	Lys Thr Thr Leu Val	
18260	18265	18270	
gtc aaa gac tgt ata	cgg act gat gga gga	caa tat att ctg aaa	54987
Val Lys Asp Cys Ile	Arg Thr Asp Gly Gly	Gln Tyr Ile Leu Lys	
18275	18280	18285	
ctc agc aat gtt ggt	ggt aca aag tct ata	ccc atc act gta aag	55032
Leu Ser Asn Val Gly	Gly Thr Lys Ser Ile	Pro Ile Thr Val Lys	
18290	18295	18300	
gta ctt gac agg cca	ggg tct cct gaa ggg	cct ctg aaa gtt act	55077
Val Leu Asp Arg Pro	Gly Ser Pro Glu Gly	Pro Leu Lys Val Thr	
18305	18310	18315	
gga gtt act gcg gaa	aaa tgt tac ctg gca	tgg aac cca cct ttg	55122
Gly Val Thr Ala Glu	Lys Cys Tyr Leu Ala	Trp Asn Pro Pro Leu	

18320	18325	18330	
caa gat ggt ggt gct Gln Asp Gly Gly Ala 18335	aat att tca cat tac Asn Ile Ser His Tyr 18340	atc att gaa aag agg Ile Ile Glu Lys Arg 18345	55167
gag aca agc cga ctc Glu Thr Ser Arg Leu 18350	tct tgg acc cag gtt Ser Trp Thr Gln Val 18355	tca act gag gta cag Ser Thr Glu Val Gln 18360	55212
gcc ctt aac tac aaa Ala Leu Asn Tyr Lys 18365	gtt act aaa ctt ctt Val Thr Lys Leu Leu 18370	cct ggt aat gag tac Pro Gly Asn Glu Tyr 18375	55257
att ttc cgt gtc atg Ile Phe Arg Val Met 18380	gct gtg aat aaa tat Ala Val Asn Lys Tyr 18385	gga att gga gag ccc Gly Ile Gly Glu Pro 18390	55302
ttg gaa tct ggg cct Leu Glu Ser Gly Pro 18395	gtt acg gcc tgt aat Val Thr Ala Cys Asn 18400	cct tat aag cca cca Pro Tyr Lys Pro Pro 18405	55347
ggc cct ccc tca aca Gly Pro Pro Ser Thr 18410	cct gaa gtc tca gca Pro Glu Val Ser Ala 18415	atc acc aaa gat tct Ile Thr Lys Asp Ser 18420	55392
atg gta gta aca tgg Met Val Val Thr Trp 18425	gca cgc cca gta gac Ala Arg Pro Val Asp 18430	gac gga ggt acc gaa Asp Gly Gly Thr Glu 18435	55437
att gag ggc tac att Ile Glu Gly Tyr Ile 18440	ctt gaa aaa cga gat Leu Glu Lys Arg Asp 18445	aag gaa ggc gtt aga Lys Glu Gly Val Arg 18450	55482
tgg acc aag tgc aac Trp Thr Lys Cys Asn 18455	aag aaa aca tta acg Lys Lys Thr Leu Thr 18460	gat ctg cgg ctc agg Asp Leu Arg Leu Arg 18465	55527
gta act ggt ctt acc Val Thr Gly Leu Thr 18470	gaa ggc cat tcc tat Glu Gly His Ser Tyr 18475	gaa ttc aga gtt gct Glu Phe Arg Val Ala 18480	55572
gct gaa aat gca gct Ala Glu Asn Ala Ala 18485	ggt gtg gga gaa cct Gly Val Gly Glu Pro 18490	agt gag cca tct gtt Ser Glu Pro Ser Val 18495	55617
ttc tac cgt gcg tgt Phe Tyr Arg Ala Cys 18500	gat gcc ttg tat cca Asp Ala Leu Tyr Pro 18505	cca ggt ccc cca agc Pro Gly Pro Pro Ser 18510	55662
aat cca aaa gtg acg Asn Pro Lys Val Thr 18515	gac act tcc aga tct Asp Thr Ser Arg Ser 18520	tct gtc tcc ctg gca Ser Val Ser Leu Ala 18525	55707
tgg agt aag cca att Trp Ser Lys Pro Ile 18530	tat gat ggt ggc gca Tyr Asp Gly Gly Ala 18535	cct gtt aaa ggc tat Pro Val Lys Gly Tyr 18540	55752

gtt gta gag gtc aaa	gaa gct gct gcg gat	gaa tgg aca acc tgc	55797
Val Val Glu Val Lys	Glu Ala Ala Ala Asp	Glu Trp Thr Thr Cys	
18545	18550	18555	
act cca cca aca gga	tta caa gga aag cag	ttc aca gtg acc aag	55842
Thr Pro Pro Thr Gly	Leu Gln Gly Lys Gln	Phe Thr Val Thr Lys	
18560	18565	18570	
ctt aaa gaa aac act	gaa tat aac ttc cgt	att tgt gcc atc aat	55887
Leu Lys Glu Asn Thr	Glu Tyr Asn Phe Arg	Ile Cys Ala Ile Asn	
18575	18580	18585	
tct gaa ggt gta ggt	gaa cct gca act cta	cct ggc tca gtg gtt	55932
Ser Glu Gly Val Gly	Glu Pro Ala Thr Leu	Pro Gly Ser Val Val	
18590	18595	18600	
gct cag gag agg ata	gag cca cca gaa ata	gaa ctc gat gct gat	55977
Ala Gln Glu Arg Ile	Glu Pro Pro Glu Ile	Glu Leu Asp Ala Asp	
18605	18610	18615	
ctc aga aag gtg gtc	gtt ctg cgt gca agt	gct act tta cgc tta	56022
Leu Arg Lys Val Val	Val Leu Arg Ala Ser	Ala Thr Leu Arg Leu	
18620	18625	18630	
ttt gtc act atc aaa	ggt cga cca gaa ccc	gaa gtt aaa tgg gaa	56067
Phe Val Thr Ile Lys	Gly Arg Pro Glu Pro	Glu Val Lys Trp Glu	
18635	18640	18645	
aag gca gaa ggc att	ctc act gac agg gct	cag ata gag gtg acc	56112
Lys Ala Glu Gly Ile	Leu Thr Asp Arg Ala	Gln Ile Glu Val Thr	
18650	18655	18660	
agc tca ttt aca atg	ttg gtg att gat aat	gtt acc aga ttt gac	56157
Ser Ser Phe Thr Met	Leu Val Ile Asp Asn	Val Thr Arg Phe Asp	
18665	18670	18675	
agt ggt cgg tat aat	ctg aca tta gaa aat	aat agt ggc tcc aaa	56202
Ser Gly Arg Tyr Asn	Leu Thr Leu Glu Asn	Asn Ser Gly Ser Lys	
18680	18685	18690	
aca gct ttt gtt aac	gtc aga gtt ctt gac	tca cca agt gcc cct	56247
Thr Ala Phe Val Asn	Val Arg Val Leu Asp	Ser Pro Ser Ala Pro	
18695	18700	18705	
gtg aat ttg acc ata	aga gaa gtg aag aaa	gac tca gtg acg ttg	56292
Val Asn Leu Thr Ile	Arg Glu Val Lys Lys	Asp Ser Val Thr Leu	
18710	18715	18720	
tcc tgg gaa cca cca	ctt att gat ggt gga	gct aag att aca aac	56337
Ser Trp Glu Pro Pro	Leu Ile Asp Gly Gly	Ala Lys Ile Thr Asn	
18725	18730	18735	
tac att gtc gaa aaa	cga gaa act aca aga	aaa gcc tat gct acc	56382
Tyr Ile Val Glu Lys	Arg Glu Thr Thr Arg	Lys Ala Tyr Ala Thr	
18740	18745	18750	
att aca aat aat tgc	act aaa act act ttc	aga att gaa aat cta	56427
Ile Thr Asn Asn Cys	Thr Lys Thr Thr Phe	Arg Ile Glu Asn Leu	

18755	18760	18765	
caa gaa gga tgt tct Gln Glu Gly Cys Ser 18770	tac tac ttc cga gtc Tyr Tyr Phe Arg Val 18775	ttg gct tcc aat gaa Leu Ala Ser Asn Glu 18780	56472
tat ggg att ggt ttg Tyr Gly Ile Gly Leu 18785	cca gct gaa aca aca Pro Ala Glu Thr Thr 18790	gaa ccc gtt aaa gtg Glu Pro Val Lys Val 18795	56517
tct gaa cca ccc ctc Ser Glu Pro Pro Leu 18800	cca cct gga aga gta Pro Pro Gly Arg Val 18805	act ctt gtt gat gtg Thr Leu Val Asp Val 18810	56562
acc cgt aat aca gct Thr Arg Asn Thr Ala 18815	aca att aag tgg gag Thr Ile Lys Trp Glu 18820	aaa cca gaa agt gat Lys Pro Glu Ser Asp 18825	56607
ggg ggc agc aaa att Gly Gly Ser Lys Ile 18830	act ggt tat gtg gtt Thr Gly Tyr Val Val 18835	gaa atg cag act aaa Glu Met Gln Thr Lys 18840	56652
ggg agt gaa aag tgg Gly Ser Glu Lys Trp 18845	agc acc tgc aca caa Ser Thr Cys Thr Gln 18850	gtt aag act cta gaa Val Lys Thr Leu Glu 18855	56697
gca act ata tct ggc Ala Thr Ile Ser Gly 18860	tta act gca gga gaa Leu Thr Ala Gly Glu 18865	gag tat gtc ttc agg Glu Tyr Val Phe Arg 18870	56742
gta gct gca gtt aac Val Ala Ala Val Asn 18875	gaa aag gga aga agt Glu Lys Gly Arg Ser 18880	gat cca aga caa ctt Asp Pro Arg Gln Leu 18885	56787
gga gtg cca gta att Gly Val Pro Val Ile 18890	gca agg gat att gaa Ala Arg Asp Ile Glu 18895	ata aag cct tca gtt Ile Lys Pro Ser Val 18900	56832
gag ctt cct ttc cat Glu Leu Pro Phe His 18905	act ttc aat gta aag Thr Phe Asn Val Lys 18910	gct aga gaa caa ctt Ala Arg Glu Gln Leu 18915	56877
aag att gat gtg cca Lys Ile Asp Val Pro 18920	ttc aaa gga aga cct Phe Lys Gly Arg Pro 18925	caa gct act gtg aac Gln Ala Thr Val Asn 18930	56922
tgg aga aaa gat ggt Trp Arg Lys Asp Gly 18935	cag act ctt aaa gag Gln Thr Leu Lys Glu 18940	aca act aga gtc aat Thr Thr Arg Val Asn 18945	56967
gtt tct tct tca aag Val Ser Ser Ser Lys 18950	act gta aca tca cta Thr Val Thr Ser Leu 18955	tct att aag gaa gct Ser Ile Lys Glu Ala 18960	57012
tca aag gaa gat gtt Ser Lys Glu Asp Val 18965	gga act tat gaa tta Gly Thr Tyr Glu Leu 18970	tgt gtt tca aac agt Cys Val Ser Asn Ser 18975	57057

gct gga tcc ata aca	gtt cct att act ata	att gtc ctt gac aga	57102
Ala Gly Ser Ile Thr	Val Pro Ile Thr Ile	Ile Val Leu Asp Arg	
18980	18985	18990	
cca gga cct cca ggt	cct ata cgt att gat	gag gtt agt tgt gac	57147
Pro Gly Pro Pro Gly	Pro Ile Arg Ile Asp	Glu Val Ser Cys Asp	
18995	19000	19005	
agc ata acc att tct	tgg aat cct cca gaa	tat gat ggt ggc tgc	57192
Ser Ile Thr Ile Ser	Trp Asn Pro Pro Glu	Tyr Asp Gly Gly Cys	
19010	19015	19020	
caa att agc aat tac	att gtt gaa aag aaa	gaa acc acc tct aca	57237
Gln Ile Ser Asn Tyr	Ile Val Glu Lys Lys	Glu Thr Thr Ser Thr	
19025	19030	19035	
aca tgg cac ata gtt	tca caa gca gtt gca	aga aca tcc att aaa	57282
Thr Trp His Ile Val	Ser Gln Ala Val Ala	Arg Thr Ser Ile Lys	
19040	19045	19050	
ata gtt cgc ctg aca	aca gga agt gag tat	cag ttc cgt gtt tgt	57327
Ile Val Arg Leu Thr	Thr Gly Ser Glu Tyr	Gln Phe Arg Val Cys	
19055	19060	19065	
gca gaa aac cgc tat	gga aag agc tcc tac	agt gaa tct tca gct	57372
Ala Glu Asn Arg Tyr	Gly Lys Ser Ser Tyr	Ser Glu Ser Ser Ala	
19070	19075	19080	
gtt gtt gca gag tat	cca ttc agt ccc cca	ggc cct cct ggt act	57417
Val Val Ala Glu Tyr	Pro Phe Ser Pro Pro	Gly Pro Pro Gly Thr	
19085	19090	19095	
cct aaa gtt gtg cat	gcc aca aaa tct acc	atg ctt gta acc tgg	57462
Pro Lys Val Val His	Ala Thr Lys Ser Thr	Met Leu Val Thr Trp	
19100	19105	19110	
caa gtg cca gtt aat	gat gga gga agt cga	gta att ggc tat cat	57507
Gln Val Pro Val Asn	Asp Gly Gly Ser Arg	Val Ile Gly Tyr His	
19115	19120	19125	
ctt gag tat aaa gaa	aga agc agc att ctt	tgg tca aaa gca aat	57552
Leu Glu Tyr Lys Glu	Arg Ser Ser Ile Leu	Trp Ser Lys Ala Asn	
19130	19135	19140	
aaa atc ctc att gct	gat act caa gtg aaa	gtc tcc ggc ctt gat	57597
Lys Ile Leu Ile Ala	Asp Thr Gln Val Lys	Val Ser Gly Leu Asp	
19145	19150	19155	
gaa gga ctg atg tat	gag tat cgt gta tat	gct gaa aat att gct	57642
Glu Gly Leu Met Tyr	Glu Tyr Arg Val Tyr	Ala Glu Asn Ile Ala	
19160	19165	19170	
gga att ggt aaa tgc	agt aaa tct tgt gaa	cca gtc cct gca aga	57687
Gly Ile Gly Lys Cys	Ser Lys Ser Cys Glu	Pro Val Pro Ala Arg	
19175	19180	19185	
gat cct tgt gac cct	cct gga caa cct gaa	gtc aca aat atc aca	57732
Asp Pro Cys Asp Pro	Pro Gly Gln Pro Glu	Val Thr Asn Ile Thr	

19190	19195	19200	
aga aaa tca gtg tca Arg Lys Ser Val Ser 19205	ctt aaa tgg tct aaa Leu Lys Trp Ser Lys 19210	cca cat tat gat ggt Pro His Tyr Asp Gly 19215	57777
gga gct aag atc aca Gly Ala Lys Ile Thr 19220	gga tac att gtt gaa Gly Tyr Ile Val Glu 19225	cgc aga gaa cta cca Arg Arg Glu Leu Pro 19230	57822
gat ggc cggtgg cta Asp Gly Arg Trp Leu 19235	aag tgc aat tat act Lys Cys Asn Tyr Thr 19240	aat ata caa gaa aca Asn Ile Gln Glu Thr 19245	57867
tac ttt gaa gta act Tyr Phe Glu Val Thr 19250	gaa ctt act gaa gat Glu Leu Thr Glu Asp 19255	cag cgt tat gaa ttc Gln Arg Tyr Glu Phe 19260	57912
cggttt gca agg Arg Val Phe Ala Arg 19265	aat gct gct gac tca Asn Ala Ala Asp Ser 19270	gtt agt gag cca tct Val Ser Glu Pro Ser 19275	57957
gaa tcc act ggg cct Glu Ser Thr Gly Pro 19280	att ata gtt aaa gat Ile Ile Val Lys Asp 19285	gat gtt gag cct cca Asp Val Glu Pro Pro 19290	58002
aga gtt atg atg gat Arg Val Met Met Asp 19295	gtc aag ttc cga gac Val Lys Phe Arg Asp 19300	gtt att gtt gtc aaa Val Ile Val Val Lys 19305	58047
gct gga gag gtc ctt Ala Gly Glu Val Leu 19310	aag ata aat gca gac Lys Ile Asn Ala Asp 19315	att gca ggg cga cct Ile Ala Gly Arg Pro 19320	58092
ctg cca gta att tcc Leu Pro Val Ile Ser 19325	tgg gcc aag gat ggt Trp Ala Lys Asp Gly 19330	ata gaa att gaa gaa Ile Glu Ile Glu Glu 19335	58137
aga gca aga aca gaa Arg Ala Arg Thr Glu 19340	atc atc tca aca gac Ile Ile Ser Thr Asp 19345	aat cat act ttg tta Asn His Thr Leu Leu 19350	58182
aca gtt aaa gac tgt Thr Val Lys Asp Cys 19355	ata aga cga gac act Ile Arg Arg Asp Thr 19360	ggg caa tat gta cta Gly Gln Tyr Val Leu 19365	58227
aca ctg aag aat gtt Thr Leu Lys Asn Val 19370	gcc ggc act cgg tct Ala Gly Thr Arg Ser 19375	gtg gcc gtt aat tgc Val Ala Val Asn Cys 19380	58272
aaa gta ctt gat aag Lys Val Leu Asp Lys 19385	cct ggt cca cca gca Pro Gly Pro Pro Ala 19390	gga cca ctt gaa ata Gly Pro Leu Glu Ile 19395	58317
aat ggc ctc act gct Asn Gly Leu Thr Ala 19400	gag aaa tgc tct ctt Glu Lys Cys Ser Leu 19405	tcc tgg gga cgt ccc Ser Trp Gly Arg Pro 19410	58362

caa gaa gat ggt ggt	gca gat atc gac tat	tac cat cgt aaa aaa	58407
Gln Glu Asp Gly Gly	Ala Asp Ile Asp Tyr	Tyr His Arg Lys Lys	
19415	19420	19425	
cgt gaa aca agc cac	ctt gca tgg aca ata	tgt gaa gga gag tta	58452
Arg Glu Thr Ser His	Leu Ala Trp Thr Ile	Cys Glu Gly Glu Leu	
19430	19435	19440	
cag atg aca tcc tgt	aaa gta acc aag tta	ctc aaa ggc aat gaa	58497
Gln Met Thr Ser Cys	Lys Val Thr Lys Leu	Leu Lys Gly Asn Glu	
19445	19450	19455	
tat ata ttt aga gta	act ggt gtt aat aaa	tat ggt gtt ggt gag	58542
Tyr Ile Phe Arg Val	Thr Gly Val Asn Lys	Tyr Gly Val Gly Glu	
19460	19465	19470	
ccc cta gag agt gta	gct ata aag gca cta	gat cca ttt aca gtt	58587
Pro Leu Glu Ser Val	Ala Ile Lys Ala Leu	Asp Pro Phe Thr Val	
19475	19480	19485	
cca agt cca ccc acg	tct ttg gaa att act	tct gtg acc aaa gaa	58632
Pro Ser Pro Pro Thr	Ser Leu Glu Ile Thr	Ser Val Thr Lys Glu	
19490	19495	19500	
tct atg aca ctt tgc	tgg tca aga ccc gag	agt gat gga ggt agt	58677
Ser Met Thr Leu Cys	Trp Ser Arg Pro Glu	Ser Asp Gly Gly Ser	
19505	19510	19515	
gaa ata tct gga tat	ata att gaa agg cga	gag aaa aat agc cta	58722
Glu Ile Ser Gly Tyr	Ile Ile Glu Arg Arg	Glu Lys Asn Ser Leu	
19520	19525	19530	
aga tgg gtg cgt gta	aac aaa aaa cca gtt	tat gat cta aga gtg	58767
Arg Trp Val Arg Val	Asn Lys Lys Pro Val	Tyr Asp Leu Arg Val	
19535	19540	19545	
aaa tca aca gga ctt	cgg gaa gga tgt gaa	tat gaa tat cgt gtt	58812
Lys Ser Thr Gly Leu	Arg Glu Gly Cys Glu	Tyr Glu Tyr Arg Val	
19550	19555	19560	
tat gca gaa aat gct	gct ggc cta agt ctt	cca agt gaa acc tct	58857
Tyr Ala Glu Asn Ala	Ala Gly Leu Ser Leu	Pro Ser Glu Thr Ser	
19565	19570	19575	
ccc tta att agg gca	gaa gat cca gtg ttc	cta cca tct cct cca	58902
Pro Leu Ile Arg Ala	Glu Asp Pro Val Phe	Leu Pro Ser Pro Pro	
19580	19585	19590	
tcc aaa ccc aaa att	gtg gac tca ggc aag	aca act ata act att	58947
Ser Lys Pro Lys Ile	Val Asp Ser Gly Lys	Thr Thr Ile Thr Ile	
19595	19600	19605	
gcc tgg gtt aag ccg	ctg ttt gat ggt ggg	gcc ccg ata act gga	58992
Ala Trp Val Lys Pro	Leu Phe Asp Gly Gly	Ala Pro Ile Thr Gly	
19610	19615	19620	
tat act gta gaa tac	aaa aaa tct gat gac	act gac tgg aaa act	59037
Tyr Thr Val Glu Tyr	Lys Lys Ser Asp Asp	Thr Asp Trp Lys Thr	

19625	19630	19635	
tcc att cag agc tta Ser Ile Gln Ser Leu 19640	cga ggg aca gaa tat Arg Gly Thr Glu Tyr 19645	aca ata agc gga cta Thr Ile Ser Gly Leu 19650	59082
aca aca gga gct gaa Thr Thr Gly Ala Glu 19655	tat gtt ttc aga gta Tyr Val Phe Arg Val 19660	aaa tct gtc aat aag Lys Ser Val Asn Lys 19665	59127
gtt ggt gct agt gac Val Gly Ala Ser Asp 19670	ccc agt gat agc tct Pro Ser Asp Ser Ser 19675	gac cct cag ata gca Asp Pro Gln Ile Ala 19680	59172
aag gaa aga gaa gaa Lys Glu Arg Glu Glu 19685	gaa cct tta ttt gat Glu Pro Leu Phe Asp 19690	att gac agt gaa atg Ile Asp Ser Glu Met 19695	59217
agg aag acc ttg att Arg Lys Thr Leu Ile 19700	gtc aag gct ggt gcc Val Lys Ala Gly Ala 19705	tca ttt acc atg act Ser Phe Thr Met Thr 19710	59262
gtg cct ttc cga gga Val Pro Phe Arg Gly 19715	aga cca gta ccc aat Arg Pro Val Pro Asn 19720	gtc ttg tgg agt aag Val Leu Trp Ser Lys 19725	59307
cca gac act gac ctc Pro Asp Thr Asp Leu 19730	cgt act aga gct tat Arg Thr Arg Ala Tyr 19735	gtt gat acc aca gac Val Asp Thr Thr Asp 19740	59352
tct cgt aca tca ctg Ser Arg Thr Ser Leu 19745	acc att gaa aat gcc Thr Ile Glu Asn Ala 19750	aac aga aat gac tct Asn Arg Asn Asp Ser 19755	59397
gga aag tac aca tta Gly Lys Tyr Thr Leu 19760	aca att cag aat gtt Thr Ile Gln Asn Val 19765	ttg agt gct gct tca Leu Ser Ala Ala Ser 19770	59442
ctg acc tta gtt gtc Leu Thr Leu Val Val 19775	aaa gtt tta gat acc Lys Val Leu Asp Thr 19780	cca ggt cct cca acc Pro Gly Pro Pro Thr 19785	59487
aac att act gtg caa Asn Ile Thr Val Gln 19790	gat gta acc aaa gag Asp Val Thr Lys Glu 19795	tct gca gtg tta tcc Ser Ala Val Leu Ser 19800	59532
tgg gat gtt cct gaa Trp Asp Val Pro Glu 19805	aac gat ggt gga gca Asn Asp Gly Gly Ala 19810	cca gtg aag aat tac Pro Val Lys Asn Tyr 19815	59577
cac ata gaa aaa cgt His Ile Glu Lys Arg 19820	gag gcc agc aag aaa Glu Ala Ser Lys Lys 19825	gca tgg gtc tct gtg Ala Trp Val Ser Val 19830	59622
acc aac aac tgt aac Thr Asn Asn Cys Asn 19835	cgc ctc tcc tac aaa Arg Leu Ser Tyr Lys 19840	gtt acc aat tta caa Val Thr Asn Leu Gln 19845	59667

gaa gga gct atc tat	tac ttc aga gtc tct	gga gaa aat gag ttt	59712
Glu Gly Ala Ile Tyr	Tyr Phe Arg Val Ser	Gly Glu Asn Glu Phe	
19850	19855	19860	
ggt gtt ggt ata cca	gct gaa aca aag gaa	gga gta aaa ata aca	59757
Gly Val Gly Ile Pro	Ala Glu Thr Lys Glu	Gly Val Lys Ile Thr	
19865	19870	19875	
gaa aaa cca agc cca	cct gaa aaa ctt gga	gta aca agt ata tcc	59802
Glu Lys Pro Ser Pro	Pro Glu Lys Leu Gly	Val Thr Ser Ile Ser	
19880	19885	19890	
aaa gac agt gtt tcc	ctg acc tgg ctg aag	cct gaa cat gat ggc	59847
Lys Asp Ser Val Ser	Leu Thr Trp Leu Lys	Pro Glu His Asp Gly	
19895	19900	19905	
gga agc aga att gta	cac tat gtc gtt gaa	gca cta gaa aaa gga	59892
Gly Ser Arg Ile Val	His Tyr Val Val Glu	Ala Leu Glu Lys Gly	
19910	19915	19920	
cag aaa aac tgg gtt	aaa tgt gca gtg gca	aag tca acc cat cac	59937
Gln Lys Asn Trp Val	Lys Cys Ala Val Ala	Lys Ser Thr His His	
19925	19930	19935	
gtt gtt tcc ggt ctg	aga gag aat tct gaa	tac ttt ttc cga gtg	59982
Val Val Ser Gly Leu	Arg Glu Asn Ser Glu	Tyr Phe Arg Val	
19940	19945	19950	
ttt gct gaa aat caa	gct ggc ctg agt gac	ccg aga gag ctt ctg	60027
Phe Ala Glu Asn Gln	Ala Gly Leu Ser Asp	Pro Arg Glu Leu Leu	
19955	19960	19965	
ctt cct gtt ctt att	aag gag caa cta gaa	cca cct gaa att gat	60072
Leu Pro Val Leu Ile	Lys Glu Gln Leu Glu	Pro Pro Glu Ile Asp	
19970	19975	19980	
atg aag aat ttc cca	agt cac act gta tat	gtt aga gct ggt tca	60117
Met Lys Asn Phe Pro	Ser His Thr Val Tyr	Val Arg Ala Gly Ser	
19985	19990	19995	
aac ctt aaa gtt gac	att cca atc tct gga	aaa cca ctt ccc aaa	60162
Asn Leu Lys Val Asp	Ile Pro Ile Ser Gly	Lys Pro Leu Pro Lys	
20000	20005	20010	
gtg acc tta tca aga	gat ggt gtc ccc ctt	aag gca acc atg aga	60207
Val Thr Leu Ser Arg	Asp Gly Val Pro Leu	Lys Ala Thr Met Arg	
20015	20020	20025	
ttt aat acc gaa att	act gct gag aac ctg	acc atc aat ctc aaa	60252
Phe Asn Thr Glu Ile	Thr Ala Glu Asn Leu	Thr Ile Asn Leu Lys	
20030	20035	20040	
gaa agt gtt aca gct	gac gct ggg aga tat	gaa atc act gct gcc	60297
Glu Ser Val Thr Ala	Asp Ala Gly Arg Tyr	Glu Ile Thr Ala Ala	
20045	20050	20055	
aac tcc agt ggt aca	acc aaa gct ttc att	aac att gtt gtg cta	60342
Asn Ser Ser Gly Thr	Thr Lys Ala Phe Ile	Asn Ile Val Val Leu	

20060	20065	20070	
gac agg cct ggt cct Asp Arg Pro Gly Pro 20075	cca act ggc cct gtt Pro Thr Gly Pro Val 20080	gtt att agt gat ata Val Ile Ser Asp Ile 20085	60387
act gaa gaa agt gtg Thr Glu Glu Ser Val 20090	act ctc aaa tgg gag Thr Leu Lys Trp Glu 20095	cca cct aag tat gac Pro Pro Lys Tyr Asp 20100	60432
ggt gga agt caa gtt Gly Gly Ser Gln Val 20105	acc aac tac att cta Thr Asn Tyr Ile Leu 20110	ctc aaa aga gaa aca Leu Lys Arg Glu Thr 20115	60477
agt act gca gtg tgg Ser Thr Ala Val Trp 20120	act gaa gtg tct gca Thr Glu Val Ser Ala 20125	aca gtt gca aga acc Thr Val Ala Arg Thr 20130	60522
atg atg aaa gtc atg Met Met Lys Val Met 20135	aaa ctg acc aca gga Lys Leu Thr Thr Gly 20140	gaa gaa tac caa ttc Glu Glu Tyr Gln Phe 20145	60567
cgc atc aag gca gaa Arg Ile Lys Ala Glu 20150	aac cgc ttt ggc atc Asn Arg Phe Gly Ile 20155	agt gat cat ata gat Ser Asp His Ile Asp 20160	60612
tca gct tgt gtg act Ser Ala Cys Val Thr 20165	gtc aaa cta cca tac Val Lys Leu Pro Tyr 20170	aca aca cct gga cca Thr Thr Pro Gly Pro 20175	60657
cca tct aca cca tgg Pro Ser Thr Pro Trp 20180	gtc act aat gtt act Val Thr Asn Val Thr 20185	cga gaa agc atc act Arg Glu Ser Ile Thr 20190	60702
gtg ggc tgg cat gaa Val Gly Trp His Glu 20195	cca gtg tca aat gga Pro Val Ser Asn Gly 20200	ggc agt gca gtc gta Gly Ser Ala Val Val 20205	60747
ggc tat cac ctg gaa Gly Tyr His Leu Glu 20210	atg aaa gac aga aac Met Lys Asp Arg Asn 20215	agt att tta tgg caa Ser Ile Leu Trp Gln 20220	60792
aaa gcc aac aaa ctg Lys Ala Asn Lys Leu 20225	gtc atc cgc aca act Val Ile Arg Thr Thr 20230	cac ttc aaa gtc aca His Phe Lys Val Thr 20235	60837
aca atc agt gct gga Thr Ile Ser Ala Gly 20240	ctt att tat gaa ttc Leu Ile Tyr Glu Phe 20245	agg gtg tat gca gaa Arg Val Tyr Ala Glu 20250	60882
aat gct gct gga gtt Asn Ala Ala Gly Val 20255	gga aaa cct agc cat Gly Lys Pro Ser His 20260	cct tct gaa cca gtc Pro Ser Glu Pro Val 20265	60927
ttg gca att gat gct Leu Ala Ile Asp Ala 20270	tgt gaa ccc cca aga Cys Glu Pro Pro Arg 20275	aat gtt cgt atc act Asn Val Arg Ile Thr 20280	60972

gat att tca aag aac	tct gtc agc ctt tca	tgg caa caa cca gct	61017
Asp Ile Ser Lys Asn	Ser Val Ser Leu Ser	Trp Gln Gln Pro Ala	
20285	20290	20295	
ttc gat gga ggt agc	aag att aca ggc tac	att gtt gag aga cgt	61062
Phe Asp Gly Gly Ser	Lys Ile Thr Gly Tyr	Ile Val Glu Arg Arg	
20300	20305	20310	
gac ctt cca gat ggc	aga tgg acc aag gcc	agc ttc acc aat gtt	61107
Asp Leu Pro Asp Gly	Arg Trp Thr Lys Ala	Ser Phe Thr Asn Val	
20315	20320	20325	
act gaa actcaa ttc	acc atc tct ggc ttg	act cag aat tcc cag	61152
Thr Glu Thr Gln Phe	Thr Ile Ser Gly Leu	Thr Gln Asn Ser Gln	
20330	20335	20340	
tat gaa ttc cgt gtc	ttt gct agg aat gct	gtt ggt tcc att agc	61197
Tyr Glu Phe Arg Val	Phe Ala Arg Asn Ala	Val Gly Ser Ile Ser	
20345	20350	20355	
aat cca tct gag gtt	gta ggg ccc att act	tgc atc gat tct tat	61242
Asn Pro Ser Glu Val	Val Gly Pro Ile Thr	Cys Ile Asp Ser Tyr	
20360	20365	20370	
ggt ggt cct gta att	gat ttg cct cta gaa	tat aca gaa gtt gtc	61287
Gly Gly Pro Val Ile	Asp Leu Pro Leu Glu	Tyr Thr Glu Val Val	
20375	20380	20385	
aaa tac aga gca ggt	aca tct gtg aag ctc	aga gct ggc att tct	61332
Lys Tyr Arg Ala Gly	Thr Ser Val Lys Leu	Arg Ala Gly Ile Ser	
20390	20395	20400	
ggc aaa cct gcg cct	act att gag tgg tat	aaa gat gat aaa gaa	61377
Gly Lys Pro Ala Pro	Thr Ile Glu Trp Tyr	Lys Asp Asp Lys Glu	
20405	20410	20415	
tta caa acc aat gca	ctg gtg tgt gtt gaa	aat acc acg gac ctc	61422
Leu Gln Thr Asn Ala	Leu Val Cys Val Glu	Asn Thr Thr Asp Leu	
20420	20425	20430	
gca tct ata ctc atc	aaa gat gcc gat cgc	ctt aat agt gga tgc	61467
Ala Ser Ile Leu Ile	Lys Asp Ala Asp Arg	Leu Asn Ser Gly Cys	
20435	20440	20445	
tat gaa tta aaa cta	agg aat gcc atg gcg	tca gcc tca gcc acc	61512
Tyr Glu Leu Lys Leu	Arg Asn Ala Met Ala	Ser Ala Ser Ala Thr	
20450	20455	20460	
atc aga gta cag atc	ctt gac aaa cca ggc	cca cct ggt gga cca	61557
Ile Arg Val Gln Ile	Leu Asp Lys Pro Gly	Pro Pro Gly Gly Pro	
20465	20470	20475	
att gaa ttt aag act	gta act gct gag aag	atc acc ctt ctc tgg	61602
Ile Glu Phe Lys Thr	Val Thr Ala Glu Lys	Ile Thr Leu Leu Trp	
20480	20485	20490	
cgg cct cca gct gat	gat ggt ggt gca aaa	atc act cac tac att	61647
Arg Pro Pro Ala Asp	Asp Gly Gly Ala Lys	Ile Thr His Tyr Ile	

20495	20500	20505	
gtg gaa aag cgt gag Val Glu Lys Arg Glu 20510	aca agc cgc gtt gtg Thr Ser Arg Val Val 20515	tgg tct atg gtg tct Trp Ser Met Val Ser 20520	61692
gaa cat ttg gaa gag Glu His Leu Glu Glu 20525	tgc atc att aca acc Cys Ile Ile Thr Thr 20530	acc aaa att atc aaa Thr Lys Ile Ile Lys 20535	61737
gga aat gaa tac atc Gly Asn Glu Tyr Ile 20540	ttc cgg gtc cga gcc Phe Arg Val Arg Ala 20545	gtg aac aaa tat gga Val Asn Lys Tyr Gly 20550	61782
att ggc gag cca ctg Ile Gly Glu Pro Leu 20555	gaa tct gat tcc gtt Glu Ser Asp Ser Val 20560	gta gcc aag aac gca Val Ala Lys Asn Ala 20565	61827
ttt gtt aca cct ggg Phe Val Thr Pro Gly 20570	cca cca ggc ata cca Pro Pro Gly Ile Pro 20575	gaa gtg aca aag att Glu Val Thr Lys Ile 20580	61872
acc aag aat tcg atg Thr Lys Asn Ser Met 20585	act gtt gta tgg agc Thr Val Val Trp Ser 20590	agg cca att gca gat Arg Pro Ile Ala Asp 20595	61917
ggc ggt agt gat ata Gly Gly Ser Asp Ile 20600	agt ggc tat ttc ctt Ser Gly Tyr Phe Leu 20605	gaa aaa cga gac aag Glu Lys Arg Asp Lys 20610	61962
aag agc cta gga tgg Lys Ser Leu Gly Trp 20615	ttt aaa gta cta aaa Phe Lys Val Leu Lys 20620	gag act atc cgt gac Glu Thr Ile Arg Asp 20625	62007
acc aga caa aaa gta Thr Arg Gln Lys Val 20630	aca gga ctc aca gaa Thr Gly Leu Thr Glu 20635	aac agt gac tat caa Asn Ser Asp Tyr Gln 20640	62052
tac aga gtt tgt gct Tyr Arg Val Cys Ala 20645	gta aac gct gct gga Val Asn Ala Ala Gly 20650	cag ggt cca ttt tct Gln Gly Pro Phe Ser 20655	62097
gaa cca tct gaa ttc Glu Pro Ser Glu Phe 20660	tac aaa gct gct gat Tyr Lys Ala Ala Asp 20665	cct att gat cct cca Pro Ile Asp Pro Pro 20670	62142
ggc cca cct gct aag Gly Pro Pro Ala Lys 20675	ata aga atc gca gat Ile Arg Ile Ala Asp 20680	tca acc aag tca tcc Ser Thr Lys Ser Ser 20685	62187
atc acc ctt ggc tgg Ile Thr Leu Gly Trp 20690	agt aag cct gtc tat Ser Lys Pro Val Tyr 20695	gat ggg ggc agt gct Asp Gly Gly Ser Ala 20700	62232
gtt act ggg tat gtt Val Thr Gly Tyr Val 20705	gtc gag ata aga caa Val Glu Ile Arg Gln 20710	gga gag gaa gag gaa Gly Glu Glu Glu Glu 20715	62277

tgg act act gtc tct	acc aaa gga gag gtc	aga act aca gaa tat	62322
Trp Thr Thr Val Ser	Thr Lys Gly Glu Val	Arg Thr Thr Glu Tyr	
20720	20725	20730	
gtg gta tcc aac ctg	aaa cct gga gtc aat	tac tac ttc cggt gta	62367
Val Val Ser Asn Leu	Lys Pro Gly Val Asn	Tyr Tyr Phe Arg Val	
20735	20740	20745	
tct gct gta aac tgt	gct gga caa gga gaa	cct ata gaa atg aat	62412
Ser Ala Val Asn Cys	Ala Gly Gln Gly Glu	Pro Ile Glu Met Asn	
20750	20755	20760	
gaa cct gta caa gct	aaa gat ata ctt gag	gca cca gag att gac	62457
Glu Pro Val Gln Ala	Lys Asp Ile Leu Glu	Ala Pro Glu Ile Asp	
20765	20770	20775	
ctg gat gtg gct ctc	aga act tct gtt att	gcc aaa gct ggt gaa	62502
Leu Asp Val Ala Leu	Arg Thr Ser Val Ile	Ala Lys Ala Gly Glu	
20780	20785	20790	
gat gta caa gtg ttg	att ccc ttt aaa ggc	aga cct cca cct act	62547
Asp Val Gln Val Leu	Ile Pro Phe Lys Gly	Arg Pro Pro Pro Thr	
20795	20800	20805	
gtc aca tgg aga aaa	gat gag aag aat ctt	ggc agt gat gcc aga	62592
Val Thr Trp Arg Lys	Asp Glu Lys Asn Leu	Gly Ser Asp Ala Arg	
20810	20815	20820	
tac agc att gaa aac	act gat tca tcc tca	tta ctc acc att cct	62637
Tyr Ser Ile Glu Asn	Thr Asp Ser Ser Ser	Leu Leu Thr Ile Pro	
20825	20830	20835	
caa gtt act cgc aat	gat aca gga aaa tat	att ctc aca ata gaa	62682
Gln Val Thr Arg Asn	Asp Thr Gly Lys Tyr	Ile Leu Thr Ile Glu	
20840	20845	20850	
aat gga gtt ggt gaa	cct aag tct tca act	gtg agt gtt aaa gtg	62727
Asn Gly Val Gly Glu	Pro Lys Ser Ser Thr	Val Ser Val Lys Val	
20855	20860	20865	
ctt gac aca cca gct	gcc tgc cag aaa cta	cag gtt aaa cat gtt	62772
Leu Asp Thr Pro Ala	Ala Cys Gln Lys Leu	Gln Val Lys His Val	
20870	20875	20880	
tct cga ggc aca gtc	act ttg ctc tgg gat	cct cct ctc att gat	62817
Ser Arg Gly Thr Val	Thr Leu Leu Trp Asp	Pro Pro Leu Ile Asp	
20885	20890	20895	
gga gga tct cca ata	att aat tat gtc att	gaa aag aga gat gcc	62862
Gly Gly Ser Pro Ile	Ile Asn Tyr Val Ile	Glu Lys Arg Asp Ala	
20900	20905	20910	
acc aag aga aca tgg	tct gtc gtg tca cac	aaa tgt tct agc aca	62907
Thr Lys Arg Thr Trp	Ser Val Val Ser His	Lys Cys Ser Ser Thr	
20915	20920	20925	
tcc ttc aag cta ata	gat ttg tcg gag aag	act cca ttc ttc ttc	62952
Ser Phe Lys Leu Ile	Asp Leu Ser Glu Lys	Thr Pro Phe Phe Phe	

20930	20935	20940	
aga gtt ctt gca gaa Arg Val Leu Ala Glu 20945	aat gaa att gga att Asn Glu Ile Gly Ile 20950	ggg gaa ccc tgt gaa Gly Glu Pro Cys Glu 20955	62997
act aca gag cca gtg Thr Thr Glu Pro Val 20960	aag gct gct gaa gta Lys Ala Ala Glu Val 20965	cca gct cct ata cgt Pro Ala Pro Ile Arg 20970	63042
gat ctc tca atg aaa Asp Leu Ser Met Lys 20975	gac tca aca aag aca Asp Ser Thr Lys Thr 20980	tct gtc atc ctc agc Ser Val Ile Leu Ser 20985	63087
tgg acc aaa cct gac Trp Thr Lys Pro Asp 20990	ttt gat ggt ggt agc Phe Asp Gly Gly Ser 20995	gtc atc aca gaa tat Val Ile Thr Glu Tyr 21000	63132
gtt gta gaa agg aaa Val Val Glu Arg Lys 21005	ggt aaa ggt gaa cag Gly Lys Gly Glu Gln 21010	acg tgg tcc cac gct Thr Trp Ser His Ala 21015	63177
ggc ata agt aag aca Gly Ile Ser Lys Thr 21020	tgt gaa att gag gtt Cys Glu Ile Glu Val 21025	agc caa ctt aag gag Ser Gln Leu Lys Glu 21030	63222
cag tca gtc ctg gag Gln Ser Val Leu Glu 21035	ttc aga gtg ttt gcc Phe Arg Val Phe Ala 21040	aaa aat gag aaa gga Lys Asn Glu Lys Gly 21045	63267
ctg agt gat cct gtc Leu Ser Asp Pro Val 21050	act att ggg cca att Thr Ile Gly Pro Ile 21055	aca gtg aaa gaa ctt Thr Val Lys Glu Leu 21060	63312
att att aca cct gaa Ile Ile Thr Pro Glu 21065	gtt gac ctg tca gat Val Asp Leu Ser Asp 21070	atc cct ggg gca caa Ile Pro Gly Ala Gln 21075	63357
gtc act gtg aga att Val Thr Val Arg Ile 21080	ggg cac aat gtg cac Gly His Asn Val His 21085	ctt gaa tta cct tat Leu Glu Leu Pro Tyr 21090	63402
aag gga aaa ccc aaa Lys Gly Lys Pro Lys 21095	cca tcc atc agt tgg Pro Ser Ile Ser Trp 21100	ctg aaa gat ggc ttg Leu Lys Asp Gly Leu 21105	63447
cca ctg aaa gaa agt Pro Leu Lys Glu Ser 21110	gaa ttt gtt cgc ttc Glu Phe Val Arg Phe 21115	agt aaa act gaa aac Ser Lys Thr Glu Asn 21120	63492
aaa att act ttg agt Lys Ile Thr Leu Ser 21125	att aag aat gcc aag Ile Lys Asn Ala Lys 21130	aag gag cat gga gga Lys Glu His Gly Gly 21135	63537
aaa tac act gtt att Lys Tyr Thr Val Ile 21140	ctt gat aat gca gtg Leu Asp Asn Ala Val 21145	tgt aga att gca gtc Cys Arg Ile Ala Val 21150	63582

ccc att aca gtc atc	acc ctt ggc cca cca	tca aag ccc aaa gga	63627
Pro Ile Thr Val Ile	Thr Leu Gly Pro Pro	Ser Lys Pro Lys Gly	
21155	21160	21165	
ccc att cga ttt gat	gaa atc aag gct gat	agt gtc atc ctg tca	63672
Pro Ile Arg Phe Asp	Glu Ile Lys Ala Asp	Ser Val Ile Leu Ser	
21170	21175	21180	
tgg gat gta cct gaa	gat aat gga gga gga	gaa att act tgt tac	63717
Trp Asp Val Pro Glu	Asp Asn Gly Gly	Glu Ile Thr Cys Tyr	
21185	21190	21195	
agc atc gag aag cgg	gaa act tca caa act	aac tgg aag atg gtg	63762
Ser Ile Glu Lys Arg	Glu Thr Ser Gln Thr	Asn Trp Lys Met Val	
21200	21205	21210	
tgt tca agt gtt gcc	aga acg act ttc aaa	gtt cct aat cta gtc	63807
Cys Ser Ser Val Ala	Arg Thr Thr Phe Lys	Val Pro Asn Leu Val	
21215	21220	21225	
aaa gat gct gaa tac	cag ttt aga gtg aga	gca gaa aac aga tac	63852
Lys Asp Ala Glu Tyr	Gln Phe Arg Val Arg	Ala Glu Asn Arg Tyr	
21230	21235	21240	
gga gtc agc caa cca	ctt gtc tca agc att	att gtg gca aaa cac	63897
Gly Val Ser Gln Pro	Leu Val Ser Ser Ile	Ile Val Ala Lys His	
21245	21250	21255	
cag ttc agg att cct	ggg ccc cca gga aag	cca gtt ata tac aat	63942
Gln Phe Arg Ile Pro	Gly Pro Pro Gly Lys	Pro Val Ile Tyr Asn	
21260	21265	21270	
gtg act tct gat ggc	atg tca cta act tgg	gat gct cca gtt tat	63987
Val Thr Ser Asp Gly	Met Ser Leu Thr Trp	Asp Ala Pro Val Tyr	
21275	21280	21285	
gat ggt ggt tca gaa	gtt act gga ttc cat	gtt gaa aag aaa gaa	64032
Asp Gly Gly Ser Glu	Val Thr Gly Phe His	Val Glu Lys Lys Glu	
21290	21295	21300	
aga aat agc atc ctc	tgg caa aaa gtt aat	aca tca cca atc tct	64077
Arg Asn Ser Ile Leu	Trp Gln Lys Val Asn	Thr Ser Pro Ile Ser	
21305	21310	21315	
gga aga gaa tat aga	gcc act gga ctg gta	gaa ggt ctg gat tac	64122
Gly Arg Glu Tyr Arg	Ala Thr Gly Leu Val	Glu Gly Leu Asp Tyr	
21320	21325	21330	
caa ttc cgt gta tat	gct gaa aat tct gct	ggc cta agc tca cct	64167
Gln Phe Arg Val Tyr	Ala Glu Asn Ser Ala	Gly Leu Ser Ser Pro	
21335	21340	21345	
agt gac cca agc aaa	ttt acc tta gct gtt	tct cca gta gac cca	64212
Ser Asp Pro Ser Lys	Phe Thr Leu Ala Val	Ser Pro Val Asp Pro	
21350	21355	21360	
cct ggc act cct gac	tac att gat gtc acc	cgg gaa acc atc aca	64257
Pro Gly Thr Pro Asp	Tyr Ile Asp Val Thr	Arg Glu Thr Ile Thr	

21365	21370	21375	
ctt aaa tgg aac cca Leu Lys Trp Asn Pro 21380	cca ttg cgt gat gga Pro Leu Arg Asp Gly 21385	ggc agt aag att gtg Gly Ser Lys Ile Val 21390	64302
ggc tat agc att gag Gly Tyr Ser Ile Glu 21395	aaa cg ^g caa gga aat Lys Arg Gln Gly Asn 21400	gaa cgc tgg gtg aga Glu Arg Trp Val Arg 21405	64347
tgc aac ttt act gac Cys Asn Phe Thr Asp 21410	gtc agt gaa tgt cag Val Ser Glu Cys Gln 21415	tac aca gtt aca gga Tyr Thr Val Thr Gly 21420	64392
ctc agt cct ggg gat Leu Ser Pro Gly Asp 21425	cgc tat gag ttc aga Arg Tyr Glu Phe Arg 21430	ata att gca aga aat Ile Ile Ala Arg Asn 21435	64437
gct gtt gga act ata Ala Val Gly Thr Ile 21440	agc ccg ccc tca cag Ser Pro Pro Ser Gln 21445	tct tct ggc att att Ser Ser Gly Ile Ile 21450	64482
atg aca aga gat gaa Met Thr Arg Asp Glu 21455	aat gtt cca cca ata Asn Val Pro Pro Ile 21460	gta gag ttt ggc cct Val Glu Phe Gly Pro 21465	64527
gaa tac ttt gat ggt Glu Tyr Phe Asp Gly 21470	ctc att att aag tcc Leu Ile Ile Lys Ser 21475	gga gag agc ctt aga Gly Glu Ser Leu Arg 21480	64572
att aaa gct ttg gta Ile Lys Ala Leu Val 21485	caa gga aga cca gtg Gln Gly Arg Pro Val 21490	cct cga gta act tgg Pro Arg Val Thr Trp 21495	64617
ttc aaa gat gga gtg Phe Lys Asp Gly Val 21500	gaa atc gaa aag agg Glu Ile Glu Lys Arg 21505	atg aat atg gaa ata Met Asn Met Glu Ile 21510	64662
acc aac gta ctt gga Thr Asn Val Leu Gly 21515	tcc acc agc cta ttt Ser Thr Ser Leu Phe 21520	gtt aga gat gct act Val Arg Asp Ala Thr 21525	64707
cgg gac cat cgt ggt Arg Asp His Arg Gly 21530	gta tac aca gtg gaa Val Tyr Thr Val Glu 21535	gcc aaa aat gca tct Ala Lys Asn Ala Ser 21540	64752
ggt tct gca aaa gca Gly Ser Ala Lys Ala 21545	gaa att aaa gtg aaa Glu Ile Lys Val Lys 21550	gta caa gat aca cca Val Gln Asp Thr Pro 21555	64797
gga aaa gta gtt ggg Gly Lys Val Val Gly 21560	cca ata aga ttc acc Pro Ile Arg Phe Thr 21565	aat att act ggg gag Asn Ile Thr Gly Glu 21570	64842
aag atg act ctg tgg Lys Met Thr Leu Trp 21575	tgg gat gcc cca ctc Trp Asp Ala Pro Leu 21580	aat gac ggt tgt gct Asn Asp Gly Cys Ala 21585	64887

ccc ata acc cac tac	atc att gaa aaa cg	gaa acc agc aga ctt	64932
Pro Ile Thr His Tyr	Ile Ile Glu Lys Arg	Glu Thr Ser Arg Leu	
21590	21595	21600	
gcc tgg gca cta att	gag gat aaa tgt gaa	gcc caa agt tac act	64977
Ala Trp Ala Leu Ile	Glu Asp Lys Cys Glu	Ala Gln Ser Tyr Thr	
21605	21610	21615	
gcc att aaa cta ata	aac ggc aat gaa tac	caa ttc cgt gtt tct	65022
Ala Ile Lys Leu Ile	Asn Gly Asn Glu Tyr	Gln Phe Arg Val Ser	
21620	21625	21630	
gca gtt aac aag ttt	ggt gtt ggc agg cca	ctt gat tct gat cca	65067
Ala Val Asn Lys Phe	Gly Val Gly Arg Pro	Leu Asp Ser Asp Pro	
21635	21640	21645	
gtg gtt gct caa ata	caa tat act gtt cct	gat gcc cct ggc att	65112
Val Val Ala Gln Ile	Gln Tyr Thr Val Pro	Asp Ala Pro Gly Ile	
21650	21655	21660	
cca gaa cct agc aac	ata aca ggc aac agc	att acc ctg aca tgg	65157
Pro Glu Pro Ser Asn	Ile Thr Gly Asn Ser	Ile Thr Leu Thr Trp	
21665	21670	21675	
gca agg cca gaa tca	gat ggt ggc agt gaa	att caa cag tat atc	65202
Ala Arg Pro Glu Ser	Asp Gly Gly Ser Glu	Ile Gln Gln Tyr Ile	
21680	21685	21690	
ctt gaa aga aga gaa	aag aaa agc aca aga	tgg gta aaa gtg atc	65247
Leu Glu Arg Arg Glu	Lys Lys Ser Thr Arg	Trp Val Lys Val Ile	
21695	21700	21705	
agc aaa cga cca atc	tct gaa aca aga ttc	aaa gtc act ggt ctg	65292
Ser Lys Arg Pro Ile	Ser Glu Thr Arg Phe	Lys Val Thr Gly Leu	
21710	21715	21720	
aca gaa ggc aat gag	tat gaa ttc cat gtc	atg gct gaa aat gct	65337
Thr Glu Gly Asn Glu	Tyr Glu Phe His Val	Met Ala Glu Asn Ala	
21725	21730	21735	
gca gga gtt gga cct	gca agt ggc atc tca	aga ctc att aaa tgt	65382
Ala Gly Val Gly Pro	Ala Ser Gly Ile Ser	Arg Leu Ile Lys Cys	
21740	21745	21750	
aga gag ccc gtc aac	cca cca ggt cct ccc	aca gtg gtc aaa gta	65427
Arg Glu Pro Val Asn	Pro Pro Gly Pro Pro	Thr Val Val Lys Val	
21755	21760	21765	
aca gac aca tca aag	aca act gtg agc tta	gaa tgg tcc aaa cca	65472
Thr Asp Thr Ser Lys	Thr Thr Val Ser Leu	Glu Trp Ser Lys Pro	
21770	21775	21780	
gtg ttt gat ggt ggc	atg gaa ata att ggg	tat att att gaa atg	65517
Val Phe Asp Gly Gly	Met Glu Ile Ile Gly	Tyr Ile Ile Glu Met	
21785	21790	21795	
tgt aag acc gac tta	gga gac tgg cac aag	gtg aat gca gag gca	65562
Cys Lys Thr Asp Leu	Gly Asp Trp His Lys	Val Asn Ala Glu Ala	

21800	21805	21810	
tgt gtg aaa aca aga Cys Val Lys Thr Arg 21815	tat aca gtc act gat Tyr Thr Val Thr Asp 21820	cta caa gca ggt gaa Leu Gln Ala Gly Glu 21825	65607
gaa tac aaa ttc cga Glu Tyr Lys Phe Arg 21830	gtt agt gct atc aat Val Ser Ala Ile Asn 21835	ggt gct gga aaa ggc Gly Ala Gly Lys Gly 21840	65652
gac agc tgt gaa gtg Asp Ser Cys Glu Val 21845	act ggc aca att aaa Thr Gly Thr Ile Lys 21850	gca gtt gac cggt tta Ala Val Asp Arg Leu 21855	65697
aca gct cct gag tta Thr Ala Pro Glu Leu 21860	gac ata gat gca aac Asp Ile Asp Ala Asn 21865	ttc aaa cag act cat Phe Lys Gln Thr His 21870	65742
gtt gtt aga gct ggg Val Val Arg Ala Gly 21875	gcc agt att cgc ctc Ala Ser Ile Arg Leu 21880	ttc att gcc tac caa Phe Ile Ala Tyr Gln 21885	65787
ggt aga cct act cct Gly Arg Pro Thr Pro 21890	aca gct gtg tgg agc Thr Ala Val Trp Ser 21895	aaa cca gac tct aac Lys Pro Asp Ser Asn 21900	65832
ctt agc ctt cgg gct Leu Ser Leu Arg Ala 21905	gat atc cat aca aca Asp Ile His Thr Thr 21910	gat tcc ttc agc acc Asp Ser Phe Ser Thr 21915	65877
ctc act gtg gaa aac Leu Thr Val Glu Asn 21920	tgc aac aga aat gat Cys Asn Arg Asn Asp 21925	gca ggg aaa tat acc Ala Gly Lys Tyr Thr 21930	65922
ctt act gtg gaa aac Leu Thr Val Glu Asn 21935	aac agt ggt agt aag Asn Ser Gly Ser Lys 21940	tca atc aca ttc acc Ser Ile Thr Phe Thr 21945	65967
gtg aaa gtg cta gac Val Lys Val Leu Asp 21950	act cca ggc cca cct Thr Pro Gly Pro Pro 21955	ggc cca att acc ttc Gly Pro Ile Thr Phe 21960	66012
aaa gat gtg acc cgg Lys Asp Val Thr Arg 21965	gga tct gct aca ttg Gly Ser Ala Thr Leu 21970	atg tgg gat gcc cct Met Trp Asp Ala Pro 21975	66057
ctt ctt gac ggt ggt Leu Leu Asp Gly Gly 21980	gcc cga atc cat cat Ala Arg Ile His His 21985	tat gtg gta gag aaa Tyr Val Val Glu Lys 21990	66102
cga gag gca agt cgc Arg Glu Ala Ser Arg 21995	cgt agt tgg cag gtt Arg Ser Trp Gln Val 22000	atc agt gaa aaa tgc Ile Ser Glu Lys Cys 22005	66147
act cgt cag atc ttc Thr Arg Gln Ile Phe 22010	aag gtc aat gac ctg Lys Val Asn Asp Leu 22015	gcc gaa ggt gtt ccg Ala Glu Gly Val Pro 22020	66192

tac tat ttc cgt gtt	tct gca gta aat gag	tat ggt gtt ggt gag	66237
Tyr Tyr Phe Arg Val	Ser Ala Val Asn Glu	Tyr Gly Val Gly Glu	
22025	22030	22035	
ccc tat gaa atg cca	gaa cca att gta gcc	acg gaa cag cct gct	66282
Pro Tyr Glu Met Pro	Glu Pro Ile Val Ala	Thr Glu Gln Pro Ala	
22040	22045	22050	
cca cct agg aga ctt	gat gtt gtt gat act	agc aaa tcc tcc gca	66327
Pro Pro Arg Arg Leu	Asp Val Val Asp Thr	Ser Lys Ser Ser Ala	
22055	22060	22065	
gtc tta gct tgg ctt	aaa cct gac cac gat	gga ggc agc cgg atc	66372
Val Leu Ala Trp Leu	Lys Pro Asp His Asp	Gly Gly Ser Arg Ile	
22070	22075	22080	
act ggc tac ctg ctt	gaa atg aga caa aag	gga tct gac ctc tgg	66417
Thr Gly Tyr Leu Leu	Glu Met Arg Gln Lys	Gly Ser Asp Leu Trp	
22085	22090	22095	
gtt gaa gct ggt cac	acc aaa cag cta act	ttc aca gta gag cgt	66462
Val Glu Ala Gly His	Thr Lys Gln Leu Thr	Phe Thr Val Glu Arg	
22100	22105	22110	
ctt gtt gag aaa act	gaa tat gaa ttc cgt	gtg aag gcc aag aat	66507
Leu Val Glu Lys Thr	Glu Tyr Glu Phe Arg	Val Lys Ala Lys Asn	
22115	22120	22125	
gat gct ggc tat agt	gaa ccc aga gaa gcc	ttc tct tct gtc atc	66552
Asp Ala Gly Tyr Ser	Glu Pro Arg Glu Ala	Phe Ser Ser Val Ile	
22130	22135	22140	
att aag gag cctcaa	atc gag ccc act gct	gac ctc act gga att	66597
Ile Lys Glu Pro Gln	Ile Glu Pro Thr Ala	Asp Leu Thr Gly Ile	
22145	22150	22155	
acc aat cag ctt ata	act tgc aaa gca gga	agc cca ttt acc att	66642
Thr Asn Gln Leu Ile	Thr Cys Lys Ala Gly	Ser Pro Phe Thr Ile	
22160	22165	22170	
gac gta cca atc agt	ggt cgt cct gcc ccc	aaa gta aca tgg aaa	66687
Asp Val Pro Ile Ser	Gly Arg Pro Ala Pro	Lys Val Thr Trp Lys	
22175	22180	22185	
ctg gaa gaa atg aga	ctt aaa gag aca gat	cga gtg agc att aca	66732
Leu Glu Glu Met Arg	Leu Lys Glu Thr Asp	Arg Val Ser Ile Thr	
22190	22195	22200	
aca aca aaa gac aga	acc aca ctg act gta	aag gac agc atg aga	66777
Thr Thr Lys Asp Arg	Thr Thr Leu Thr Val	Lys Asp Ser Met Arg	
22205	22210	22215	
ggt gac tct gga aga	tac ttc ttg acc ctg	gaa aat aca gct ggt	66822
Gly Asp Ser Gly Arg	Tyr Phe Leu Thr Leu	Glu Asn Thr Ala Gly	
22220	22225	22230	
gtt aaa aca ttt agc	gtc aca gtt gtg gtc	att gga agg cca ggt	66867
Val Lys Thr Phe Ser	Val Thr Val Val Val	Ile Gly Arg Pro Gly	

22235	22240	22245	
cca gta acc ggc ccc Pro Val Thr Gly Pro 22250	att gag gtc tca tct Ile Glu Val Ser Ser 22255	gtc tca gct gaa tcg Val Ser Ala Glu Ser 22260	66912
tgt gtc ctg tca tgg Cys Val Leu Ser Trp 22265	gga gaa cct aaa gat Gly Glu Pro Lys Asp 22270	gga gga ggc act gaa Gly Gly Gly Thr Glu 22275	66957
att act aat tac ata Ile Thr Asn Tyr Ile 22280	gtt gaa aag cgt gaa Val Glu Lys Arg Glu 22285	tcg ggt aca aca gct Ser Gly Thr Thr Ala 22290	67002
tgg cag ctt gtc aat Trp Gln Leu Val Asn 22295	tcc agt gtc aag cgc Ser Ser Val Lys Arg 22300	act caa att aaa gtc Thr Gln Ile Lys Val 22305	67047
act cat ctc aca aaa Thr His Leu Thr Lys 22310	tac atg gaa tat tct Tyr Met Glu Tyr Ser 22315	ttc cgt gtc agt tca Phe Arg Val Ser Ser 22320	67092
gag aac aga ttt ggt Glu Asn Arg Phe Gly 22325	gtc agc aaa cct cta Val Ser Lys Pro Leu 22330	gaa tca gca cca ata Glu Ser Ala Pro Ile 22335	67137
att gct gaa cat cca Ile Ala Glu His Pro 22340	ttt gtc cca cca agc Phe Val Pro Pro Ser 22345	gct cct acc aga cct Ala Pro Thr Arg Pro 22350	67182
gag gtc tac cat gtg Glu Val Tyr His Val 22355	tct gcc aat gcc atg Ser Ala Asn Ala Met 22360	tct att cgt tgg gaa Ser Ile Arg Trp Glu 22365	67227
gaa ccc tac cac gat Glu Pro Tyr His Asp 22370	ggt ggc agt aaa atc Gly Gly Ser Lys Ile 22375	att ggc tac tgg gtt Ile Gly Tyr Trp Val 22380	67272
gag aag aaa gaa cgt Glu Lys Lys Glu Arg 22385	aat aca att ctt tgg Asn Thr Ile Leu Trp 22390	gtg aaa gaa aac aaa Val Lys Glu Asn Lys 22395	67317
gtg cca tgc tta gag Val Pro Cys Leu Glu 22400	tgc aac tac aaa gta Cys Asn Tyr Lys Val 22405	act ggt tta gta gaa Thr Gly Leu Val Glu 22410	67362
gga ctg gaa tat cag Gly Leu Glu Tyr Gln 22415	ttc aga act tat gca Phe Arg Thr Tyr Ala 22420	ctc aat gct gca ggt Leu Asn Ala Ala Gly 22425	67407
gtt agc aag gcc agc Val Ser Lys Ala Ser 22430	gaa gct tca aga cct Glu Ala Ser Arg Pro 22435	ata atg gct caa aat Ile Met Ala Gln Asn 22440	67452
cca gtt gat gca cca Pro Val Asp Ala Pro 22445	ggc aga cca gag gtg Gly Arg Pro Glu Val 22450	aca gat gtc aca aga Thr Asp Val Thr Arg 22455	67497

tca aca gta tca ctg	att tgg tct gcc cca	gcg tat gat gga ggc	67542
Ser Thr Val Ser Leu	Ile Trp Ser Ala Pro	Ala Tyr Asp Gly Gly	
22460	22465	22470	
agc aag gtt gtg ggc	tac atc ata gag cgt	aag cca gtc agt gag	67587
Ser Lys Val Val Gly	Tyr Ile Ile Glu Arg	Lys Pro Val Ser Glu	
22475	22480	22485	
gta gga gat ggt cgc	tgg ctg aag tgc aac	tac acc att gta tct	67632
Val Gly Asp Gly Arg	Trp Leu Lys Cys Asn	Tyr Thr Ile Val Ser	
22490	22495	22500	
gac aat ttc ttc acc	gtg act gct ctc agt	gaa gga gac act tat	67677
Asp Asn Phe Phe Thr	Val Thr Ala Leu Ser	Glu Gly Asp Thr Tyr	
22505	22510	22515	
gag ttc cgt gtg tta	gcc aag aat gca gca	ggc gta att agc aaa	67722
Glu Phe Arg Val Leu	Ala Lys Asn Ala Ala	Gly Val Ile Ser Lys	
22520	22525	22530	
ggg tct gaa tct aca	ggc cct gtc act tgc	cga gat gaa tac gct	67767
Gly Ser Glu Ser Thr	Gly Pro Val Thr Cys	Arg Asp Glu Tyr Ala	
22535	22540	22545	
cca ccc aaa gcc gaa	ctg gat gcc cga tta	cac ggt gat ctg gtt	67812
Pro Pro Lys Ala Glu	Leu Asp Ala Arg Leu	His Gly Asp Leu Val	
22550	22555	22560	
acc atc aga gca ggt	tct gat ctt gtt ctg	gat gct gca gtt ggt	67857
Thr Ile Arg Ala Gly	Ser Asp Leu Val Leu	Asp Ala Ala Val Gly	
22565	22570	22575	
ggc aaa cct gaa ccc	aaa att atc tgg acc	aaa gga gac aag gag	67902
Gly Lys Pro Glu Pro	Lys Ile Ile Trp Thr	Lys Gly Asp Lys Glu	
22580	22585	22590	
cta gat ctc tgt gaa	aaa gtc tct ttg cag	tat act ggc aaa cga	67947
Leu Asp Leu Cys Glu	Lys Val Ser Leu Gln	Tyr Thr Gly Lys Arg	
22595	22600	22605	
gca act gct gtg atc	aag ttc tgt gac aga	agt gac agt gga aaa	67992
Ala Thr Ala Val Ile	Lys Phe Cys Asp Arg	Ser Asp Ser Gly Lys	
22610	22615	22620	
tac act tta aca gtg	aaa aat gcc agc ggg	acc aag gcc gtg tct	68037
Tyr Thr Leu Thr Val	Lys Asn Ala Ser Gly	Thr Lys Ala Val Ser	
22625	22630	22635	
gtc atg gtc aaa gtg	ctt gat tcc cct ggc	cca tgt gga aag ctc	68082
Val Met Val Lys Val	Leu Asp Ser Pro Gly	Pro Cys Gly Lys Leu	
22640	22645	22650	
acc gtc agc aga gta	aca cag gag aag tgc	act tta gcc tgg agc	68127
Thr Val Ser Arg Val	Thr Gln Glu Lys Cys	Thr Leu Ala Trp Ser	
22655	22660	22665	
ctt ccg cag gaa gac	gga gga gca gaa atc	act cac tac atc gtg	68172
Leu Pro Gln Glu Asp	Gly Gly Ala Glu Ile	Thr His Tyr Ile Val	

22670	22675	22680	
gaa aga cgc gag act Glu Arg Arg Glu Thr 22685	agc agg ctc aac tgg Ser Arg Leu Asn Trp 22690	gtg att gtt gaa ggc Val Ile Val Glu Gly 22695	68217
gaa tgc cca acc cta Glu Cys Pro Thr Leu 22700	tcc tat gtc gtt acc Ser Tyr Val Val Thr 22705	agg ctc atc aag aac Arg Leu Ile Lys Asn 22710	68262
aat gag tac ata ttc Asn Glu Tyr Ile Phe 22715	cga gtg agg gca gta Arg Val Arg Ala Val 22720	aac aaa tat ggc cct Asn Lys Tyr Gly Pro 22725	68307
ggt gtg cct gtt gaa Gly Val Pro Val Glu 22730	tca gag cca att gta Ser Glu Pro Ile Val 22735	gcc aga aac tca ttc Ala Arg Asn Ser Phe 22740	68352
act att cca tca cca Thr Ile Pro Ser Pro 22745	ccc ggc ata cct gaa Pro Gly Ile Pro Glu 22750	gaa gtt ggg act ggc Glu Val Gly Thr Gly 22755	68397
aaa gag cat atc atc Lys Glu His Ile Ile 22760	att cag tgg aca aaa Ile Gln Trp Thr Lys 22765	cct gaa tct gat ggt Pro Glu Ser Asp Gly 22770	68442
ggc aat gaa atc agc Gly Asn Glu Ile Ser 22775	aac tac cta gta gac Asn Tyr Leu Val Asp 22780	aaa cgt gag aag gag Lys Arg Glu Lys Glu 22785	68487
agc ctg cgc tgg aca Ser Leu Arg Trp Thr 22790	cgt gtc aac aaa gac Arg Val Asn Lys Asp 22795	tat gtg gtg tat gat Tyr Val Val Tyr Asp 22800	68532
acc agg ctg aag gtg Thr Arg Leu Lys Val 22805	acc agc ctg atg gag Thr Ser Leu Met Glu 22810	ggt tgt gat tac cag Gly Cys Asp Tyr Gln 22815	68577
ttc cgg gtg acc gca Phe Arg Val Thr Ala 22820	gtg aat gca gct ggt Val Asn Ala Ala Gly 22825	aac agt gag ccc agc Asn Ser Glu Pro Ser 22830	68622
gaa cgt tcc aac ttc Glu Arg Ser Asn Phe 22835	atc tca tgc aga gaa Ile Ser Cys Arg Glu 22840	cca tca tat acc cct Pro Ser Tyr Thr Pro 22845	68667
gga cca cct tct gct Gly Pro Pro Ser Ala 22850	cca aga gtt gtg gat Pro Arg Val Val Asp 22855	acc acc aaa cac agc Thr Thr Lys His Ser 22860	68712
att agt ttg gca tgg Ile Ser Leu Ala Trp 22865	acc aaa ccc atg tac Thr Lys Pro Met Tyr 22870	gat ggt ggt act gac Asp Gly Gly Thr Asp 22875	68757
att gta gga tat gtt Ile Val Gly Tyr Val 22880	ctg gaa atg caa gag Leu Glu Met Gln Glu 22885	aag gac act gat cag Lys Asp Thr Asp Gln 22890	68802

tgg tac cga gtg cat	acc aat gcc aca ata	aga aat act gaa ttc	68847
Trp Tyr Arg Val His	Thr Asn Ala Thr Ile	Arg Asn Thr Glu Phe	
22895	22900	22905	
act gtg cca gac ctt	aaa atg ggc cag aaa	tat tcc ttc aga gtt	68892
Thr Val Pro Asp Leu	Lys Met Gly Gln Lys	Tyr Ser Phe Arg Val	
22910	22915	22920	
gct gcc gtg aac gtg	aag ggt atg agc gaa	tac agc gaa tca att	68937
Ala Ala Val Asn Val	Lys Gly Met Ser Glu	Tyr Ser Glu Ser Ile	
22925	22930	22935	
gct gaa att gag ccc	gtg gaa aga ata gaa	ata cca gat ctt gag	68982
Ala Glu Ile Glu Pro	Val Glu Arg Ile Glu	Ile Pro Asp Leu Glu	
22940	22945	22950	
ctt gca gat gat cta	aag aag act gtg acc	atc agg gct ggg gcc	69027
Leu Ala Asp Asp Leu	Lys Lys Thr Val Thr	Ile Arg Ala Gly Ala	
22955	22960	22965	
tcc ttg cgc ttg atg	gtg tct gta tct gga	aga cca cct cct gtc	69072
Ser Leu Arg Leu Met	Val Ser Val Ser Gly	Arg Pro Pro Pro Val	
22970	22975	22980	
ata acg tgg agc aag	cag ggc att gac ctt	gca agc cgg gca att	69117
Ile Thr Trp Ser Lys	Gln Gly Ile Asp Leu	Ala Ser Arg Ala Ile	
22985	22990	22995	
att gac acc act gag	agc tac tca ttg cta	ata gtg gac aaa gtt	69162
Ile Asp Thr Thr Glu	Ser Tyr Ser Leu Leu	Ile Val Asp Lys Val	
23000	23005	23010	
aat cgg tac gat gct	gga aaa tac aca att	gaa gct gaa aac caa	69207
Asn Arg Tyr Asp Ala	Gly Lys Tyr Thr Ile	Glu Ala Glu Asn Gln	
23015	23020	23025	
tct ggc aag aaa tca	gca aca gtc ctt gtt	aaa gtc tat gat act	69252
Ser Gly Lys Lys Ser	Ala Thr Val Leu Val	Lys Val Tyr Asp Thr	
23030	23035	23040	
cct ggt ccc tgt cct	tca gtg aaa gtt aag	gaa gta tca aga gat	69297
Pro Gly Pro Cys Pro	Ser Val Lys Val Lys	Glu Val Ser Arg Asp	
23045	23050	23055	
tct gtg act ata act	tgg gaa att ccc acg	att gat ggt gga gct	69342
Ser Val Thr Ile Thr	Trp Glu Ile Pro Thr	Ile Asp Gly Gly Ala	
23060	23065	23070	
cca atc aac aat tac	atc gtt gag aag cgt	gaa gct gct atg aga	69387
Pro Ile Asn Asn Tyr	Ile Val Glu Lys Arg	Glu Ala Ala Met Arg	
23075	23080	23085	
gca ttc aaa aca gta	act acc aaa tgc agc	aag aca ctt tac aga	69432
Ala Phe Lys Thr Val	Thr Thr Lys Cys Ser	Lys Thr Leu Tyr Arg	
23090	23095	23100	
att tct gga ctt gta	gaa gga acc atg cac	tat ttc aga gtg ctg	69477
Ile Ser Gly Leu Val	Glu Gly Thr Met His	Tyr Phe Arg Val Leu	

23105	23110	23115	
cca gaa aat att tat Pro Glu Asn Ile Tyr 23120	ggc att gga gaa cct Gly Ile Gly Glu Pro 23125	tgt gaa aca tct gat Cys Glu Thr Ser Asp 23130	69522
gca gta ctg gtc tca Ala Val Leu Val Ser 23135	gaa gtg cct ttg gtg Glu Val Pro Leu Val 23140	cct gca aag cta gaa Pro Ala Lys Leu Glu 23145	69567
gtg gtc gat gtc acc Val Val Asp Val Thr 23150	aaa tcc act gtt acc Lys Ser Thr Val Thr 23155	ctt gcc tgg gaa aaa Leu Ala Trp Glu Lys 23160	69612
cca ctc tac gat ggt Pro Leu Tyr Asp Gly 23165	ggt agc cga ctc act Gly Ser Arg Leu Thr 23170	gga tat gtt ctc gag Gly Tyr Val Leu Glu 23175	69657
gcc tgc aaa gct ggc Ala Cys Lys Ala Gly 23180	aca gag aga tgg atg Thr Glu Arg Trp Met 23185	aag gtt gtc acc tta Lys Val Val Thr Leu 23190	69702
aaa ccc aca gtc cta Lys Pro Thr Val Leu 23195	gag cac act gtt act Glu His Thr Val Thr 23200	tcc tta aat gaa ggt Ser Leu Asn Glu Gly 23205	69747
gaa caa tac tta ttt Glu Gln Tyr Leu Phe 23210	aga ata agg gca caa Arg Ile Arg Ala Gln 23215	aat gag aaa ggt gtg Asn Glu Lys Gly Val 23220	69792
tca gaa cca aga gag Ser Glu Pro Arg Glu 23225	act gtc aca gcc gtg Thr Val Thr Ala Val 23230	act gta caa gac ctc Thr Val Gln Asp Leu 23235	69837
aga gtg ttg cca aca Arg Val Leu Pro Thr 23240	atc gat ctt tct aca Ile Asp Leu Ser Thr 23245	atg cct cag aag acc Met Pro Gln Lys Thr 23250	69882
atc cat gtc cca gct Ile His Val Pro Ala 23255	ggc aga cca gta gag Gly Arg Pro Val Glu 23260	ctg gtg ata cct att Leu Val Ile Pro Ile 23265	69927
gct ggc cgt cca cct Ala Gly Arg Pro Pro 23270	cct gct gct tcc tgg Pro Ala Ala Ser Trp 23275	ttc ttt gct ggt tct Phe Phe Ala Gly Ser 23280	69972
aaa ctg aga gaa tca Lys Leu Arg Glu Ser 23285	gag cgt gtc aca gtt Glu Arg Val Thr Val 23290	gaa act cac act aaa Glu Thr His Thr Lys 23295	70017
gta gct aaa tta acc Val Ala Lys Leu Thr 23300	atc cgt gaa acc act Ile Arg Glu Thr Thr 23305	atc aga gat act gga Ile Arg Asp Thr Gly 23310	70062
gaa tac aca ctt gaa Glu Tyr Thr Leu Glu 23315	ttg aag aat gtt acc Leu Lys Asn Val Thr 23320	gga act act tca gaa Gly Thr Thr Ser Glu 23325	70107

acc att aaa gtt atc	att ctt gac aag cct	ggt cca cca aca gga	70152
Thr Ile Lys Val Ile	Ile Leu Asp Lys Pro	Gly Pro Pro Thr Gly	
23330	23335	23340	
cct att aag att gat	gaa att gat gct aca	tca att acc att tcc	70197
Pro Ile Lys Ile Asp	Glu Ile Asp Ala Thr	Ser Ile Thr Ile Ser	
23345	23350	23355	
tgg gaa cca cct gaa	ttg gac ggt ggt gct	cca ctg agt ggt tat	70242
Trp Glu Pro Pro Glu	Leu Asp Gly Gly Ala	Pro Leu Ser Gly Tyr	
23360	23365	23370	
gtg gta gaa caa cgt	gac gct cat cgt cca	gga tgg ctg ccc gtt	70287
Val Val Glu Gln Arg	Asp Ala His Arg Pro	Gly Trp Leu Pro Val	
23375	23380	23385	
tct gaa tca gtg act	agg tcc acg ttt aag	ttt acc aga ctc acc	70332
Ser Glu Ser Val Thr	Arg Ser Thr Phe Lys	Phe Thr Arg Leu Thr	
23390	23395	23400	
gaa gga aat gag tat	gtg ttc cgt gtg gct	gca aca aac cgc ttc	70377
Glu Gly Asn Glu Tyr	Val Phe Arg Val Ala	Ala Thr Asn Arg Phe	
23405	23410	23415	
ggg att ggc tct tac	ttg cag tct gag gtc	ata gag tgt cgc agc	70422
Gly Ile Gly Ser Tyr	Leu Gln Ser Glu Val	Ile Glu Cys Arg Ser	
23420	23425	23430	
agc atc cgt att cct	gga ccc cca gaa aca	tta cag ata ttt gat	70467
Ser Ile Arg Ile Pro	Gly Pro Pro Glu Thr	Leu Gln Ile Phe Asp	
23435	23440	23445	
gtt tcc cgt gat ggc	atg aca ctt act tgg	tac cca cca gag gat	70512
Val Ser Arg Asp Gly	Met Thr Leu Thr Trp	Tyr Pro Pro Glu Asp	
23450	23455	23460	
gac ggt ggc tcc caa	gtg act gga tat att	gtg gag cgc aaa gaa	70557
Asp Gly Gly Ser Gln	Val Thr Gly Tyr Ile	Val Glu Arg Lys Glu	
23465	23470	23475	
gtg aga gca gat cga	tgg gtc cgt gta aat	aaa gta cct gtg aca	70602
Val Arg Ala Asp Arg	Trp Val Arg Val Asn	Lys Val Pro Val Thr	
23480	23485	23490	
atg aca cgg tac cgc	tcc act ggc ctt act	gaa ggc tta gaa tat	70647
Met Thr Arg Tyr Arg	Ser Thr Gly Leu Thr	Glu Gly Leu Glu Tyr	
23495	23500	23505	
gaa cac cgt gtc aca	gcc att aat gca aga	ggg tct ggg aaa cca	70692
Glu His Arg Val Thr	Ala Ile Asn Ala Arg	Gly Ser Gly Lys Pro	
23510	23515	23520	
agt cgt cct tcc aaa	ccc atc gtt gcc atg	gat cca att gct cct	70737
Ser Arg Pro Ser Lys	Pro Ile Val Ala Met	Asp Pro Ile Ala Pro	
23525	23530	23535	
cca gga aag cca caa	aac cca aga gtt act	gat aca aca agg aca	70782
Pro Gly Lys Pro Gln	Asn Pro Arg Val Thr	Asp Thr Thr Arg Thr	

23540	23545	23550	
tca gtc tcc ctg gcc Ser Val Ser Leu Ala 23555	tgg agt gtt cca gaa Trp Ser Val Pro Glu 23560	gat gaa gga gga tct Asp Glu Gly Gly Ser 23565	70827
aaa gtc aca ggc tac Lys Val Thr Gly Tyr 23570	ttg att gaa atg caa Leu Ile Glu Met Gln 23575	aaa gta gat caa cat Lys Val Asp Gln His 23580	70872
gaa tgg acc aag tgt Glu Trp Thr Lys Cys 23585	aac acc act cca acc Asn Thr Thr Pro Thr 23590	aag att cga gag tat Lys Ile Arg Glu Tyr 23595	70917
act cta aca cac cta Thr Leu Thr His Leu 23600	cct cag ggt gca gaa Pro Gln Gly Ala Glu 23605	tac agg ttc cgc gtc Tyr Arg Phe Arg Val 23610	70962
cta gct tgt aat gct Leu Ala Cys Asn Ala 23615	ggt gga cct ggt gag Gly Gly Pro Gly Glu 23620	cct gct gag gta cca Pro Ala Glu Val Pro 23625	71007
gga aca gtc aaa gtc Gly Thr Val Lys Val 23630	act gaa atg ctt gaa Thr Glu Met Leu Glu 23635	tat cct gat tat gaa Tyr Pro Asp Tyr Glu 23640	71052
ctt gat gaa aga tac Leu Asp Glu Arg Tyr 23645	caa gaa ggt atc ttt Gln Glu Gly Ile Phe 23650	gta agg caa ggt ggc Val Arg Gln Gly Gly 23655	71097
gtc atc aga ctt acc Val Ile Arg Leu Thr 23660	ata cca atc aaa gga Ile Pro Ile Lys Gly 23665	aaa cca ttc cca ata Lys Pro Phe Pro Ile 23670	71142
tgt aaa tgg acc aag Cys Lys Trp Thr Lys 23675	gaa ggc cag gat att Glu Gly Gln Asp Ile 23680	agt aag cgt gcc atg Ser Lys Arg Ala Met 23685	71187
att gca aca tct gaa Ile Ala Thr Ser Glu 23690	aca cac act gag ctt Thr His Thr Glu Leu 23695	gtg atc aaa gaa gca Val Ile Lys Glu Ala 23700	71232
gac agg ggt gat tct Asp Arg Gly Asp Ser 23705	ggc act tat gac ctg Gly Thr Tyr Asp Leu 23710	gtt ctg gaa aat aaa Val Leu Glu Asn Lys 23715	71277
tgt ggc aag aag gct Cys Gly Lys Lys Ala 23720	gtc tac atc aag gtc Val Tyr Ile Lys Val 23725	agg gtg ata gga agt Arg Val Ile Gly Ser 23730	71322
ccc aac agt cca gaa Pro Asn Ser Pro Glu 23735	ggg cca ctg gaa tat Gly Pro Leu Glu Tyr 23740	gat gac atc caa gtc Asp Asp Ile Gln Val 23745	71367
cgc tct gtg agg gtc Arg Ser Val Arg Val 23750	agc tgg aga cct cct Ser Trp Arg Pro Pro 23755	gct gat gat ggt ggt Ala Asp Asp Gly Gly 23760	71412

gct gac atc tta ggc	tac atc ctc gag aga	cga gaa gtg cct aaa	71457
Ala Asp Ile Leu Gly	Tyr Ile Leu Glu Arg	Arg Glu Val Pro Lys	
23765	23770	23775	
gcc gcc tgg tat acc	att gat tcc aga gtc	cga ggt aca tct ctg	71502
Ala Ala Trp Tyr Thr	Ile Asp Ser Arg Val	Arg Gly Thr Ser Leu	
23780	23785	23790	
gtg gta aaa ggc ctc	aaa gag aat gta gaa	tac cat ttc cgt gtt	71547
Val Val Lys Gly Leu	Lys Glu Asn Val Glu	Tyr His Phe Arg Val	
23795	23800	23805	
tca gca gaa aac cag	ttt ggc ata agc aaa	ccc ttg aaa tct gag	71592
Ser Ala Glu Asn Gln	Phe Gly Ile Ser Lys	Pro Leu Lys Ser Glu	
23810	23815	23820	
gaa cca gtc aca cca	aaa aca cca ttg aat	cct cca gaa cct cca	71637
Glu Pro Val Thr Pro	Lys Thr Pro Leu Asn	Pro Pro Glu Pro Pro	
23825	23830	23835	
agc aat cct cca gaa	gta ctc gat gta acc	aag agt tct gtt agc	71682
Ser Asn Pro Pro Glu	Val Leu Asp Val Thr	Lys Ser Ser Val Ser	
23840	23845	23850	
ttg tcc tgg tcc cgg	ccc aaa gat gat ggt	ggt tct aga gtc aca	71727
Leu Ser Trp Ser Arg	Pro Lys Asp Asp Gly	Gly Ser Arg Val Thr	
23855	23860	23865	
ggc tac tac atc gaa	cgc aaa gag aca tcc	act gac aag tgg gtc	71772
Gly Tyr Tyr Ile Glu	Arg Lys Glu Thr Ser	Thr Asp Lys Trp Val	
23870	23875	23880	
aga cac aac aag act	cag atc acc acc aca	atg tac act gtc aca	71817
Arg His Asn Lys Thr	Gln Ile Thr Thr Thr	Met Tyr Thr Val Thr	
23885	23890	23895	
ggg ctt gtt ccc gat	gct gag tat cag ttc	cgc atc atc gca cag	71862
Gly Leu Val Pro Asp	Ala Glu Tyr Gln Phe	Arg Ile Ile Ala Gln	
23900	23905	23910	
aat gat gtt ggc ctg	agt gag acc agc cct	gct tct gaa cca gtt	71907
Asn Asp Val Gly Leu	Ser Glu Thr Ser Pro	Ala Ser Glu Pro Val	
23915	23920	23925	
gtt tgc aaa gat cca	ttt gat aaa cca agc	caa cca gga gaa ctt	71952
Val Cys Lys Asp Pro	Phe Asp Lys Pro Ser	Gln Pro Gly Glu Leu	
23930	23935	23940	
gag att ctt tca ata	tcc aaa gat agt gtc	act cta cag tgg gag	71997
Glu Ile Leu Ser Ile	Ser Lys Asp Ser Val	Thr Leu Gln Trp Glu	
23945	23950	23955	
aaa cct gaa tgt gat	ggt ggt aaa gaa att	ctt gga tac tgg gtt	72042
Lys Pro Glu Cys Asp	Gly Gly Lys Glu Ile	Leu Gly Tyr Trp Val	
23960	23965	23970	
gaa tat aga cag tct	gga gac agt gcc tgg	aag aag agc aat aag	72087
Glu Tyr Arg Gln Ser	Gly Asp Ser Ala Trp	Lys Lys Ser Asn Lys	

23975	23980	23985	
gaa cgt att aag gac Glu Arg Ile Lys Asp 23990	aag caa ttc aca ata Lys Gln Phe Thr Ile 23995	gga ggt ttg ctg gaa Gly Gly Leu Leu Glu 24000	72132
gct act gag tat gaa Ala Thr Glu Tyr Glu 24005	ttc agg gtt ttt gct Phe Arg Val Phe Ala 24010	gag aat gag act ggg Glu Asn Glu Thr Gly 24015	72177
ctg agc aga cct cgc Leu Ser Arg Pro Arg 24020	aga act gct atg tct Arg Thr Ala Met Ser 24025	ata aag act aaa ctc Ile Lys Thr Lys Leu 24030	72222
aca tct gga gag gcc Thr Ser Gly Glu Ala 24035	cca gga ata cgc aaa Pro Gly Ile Arg Lys 24040	gaa atg aag gat gtt Glu Met Lys Asp Val 24045	72267
acc aca aaa ttg ggt Thr Thr Lys Leu Gly 24050	gaa gct gct caa ctc Glu Ala Ala Gln Leu 24055	tca tgc cag att gtt Ser Cys Gln Ile Val 24060	72312
gga agg cct ctt cct Gly Arg Pro Leu Pro 24065	gac att aaa tgg tac Asp Ile Lys Trp Tyr 24070	aga ttt ggt aaa gag Arg Phe Gly Lys Glu 24075	72357
ctc ata caa agc cgg Leu Ile Gln Ser Arg 24080	aaa tac aaa atg tct Lys Tyr Lys Met Ser 24085	tca gat gga cgc aca Ser Asp Gly Arg Thr 24090	72402
cac act ctt aca gta His Thr Leu Thr Val 24095	atg aca gag gaa cag Met Thr Glu Glu Gln 24100	gaa gat gaa ggt gtt Glu Asp Glu Gly Val 24105	72447
tat acc tgc ata gcc Tyr Thr Cys Ile Ala 24110	acc aat gag gtt gga Thr Asn Glu Val Gly 24115	gaa gta gaa acc agt Glu Val Glu Thr Ser 24120	72492
agt aag ctt ctc ctg Ser Lys Leu Leu Leu 24125	caa gca aca ccg cag Gln Ala Thr Pro Gln 24130	ttc cat cct ggt tac Phe His Pro Gly Tyr 24135	72537
cca ctg aaa gag aaa Pro Leu Lys Glu Lys 24140	tat tat gga gct gtg Tyr Tyr Gly Ala Val 24145	ggt tcc aca ctt cgg Gly Ser Thr Leu Arg 24150	72582
ctt cat gtt atg tac Leu His Val Met Tyr 24155	att ggt cgt cca gta Ile Gly Arg Pro Val 24160	cct gcc atg act tgg Pro Ala Met Thr Trp 24165	72627
ttc cat ggt cag aaa Phe His Gly Gln Lys 24170	ctt ttg caa aac tca Leu Leu Gln Asn Ser 24175	gaa aac att act att Glu Asn Ile Thr Ile 24180	72672
gaa aac act gag cac Glu Asn Thr Glu His 24185	tat act cat ctt gtc Tyr Thr His Leu Val 24190	atg aag aat gtc caa Met Lys Asn Val Gln 24195	72717

cgt aag act cat gct	ggg aaa tac aaa gtc	cag ctc agc aat gtt	72762
Arg Lys Thr His Ala	Gly Lys Tyr Lys Val	Gln Leu Ser Asn Val	
24200	24205	24210	
ttt gga aca gtt gat	gcc atc ctt gat gtg	gaa ata caa gat aaa	72807
Phe Gly Thr Val Asp	Ala Ile Leu Asp Val	Glu Ile Gln Asp Lys	
24215	24220	24225	
cca gac aaa cct aca	gga cca att gtg atc	gaa gct cta ttg aag	72852
Pro Asp Lys Pro Thr	Gly Pro Ile Val Ile	Glu Ala Leu Leu Lys	
24230	24235	24240	
aac tcc gca gtg atc	agc tgg aaa cca ccc	gca gat gac gga ggc	72897
Asn Ser Ala Val Ile	Ser Trp Lys Pro Pro	Ala Asp Asp Gly Gly	
24245	24250	24255	
tcc tgg atc acc aac	tat gtg gtg gaa aaa	tgt gag gcc aag gag	72942
Ser Trp Ile Thr Asn	Tyr Val Val Glu Lys	Cys Glu Ala Lys Glu	
24260	24265	24270	
ggg gct gaa tgg caa	ttg gtg tct tca gcc	atc tca gtg aca acc	72987
Gly Ala Glu Trp Gln	Leu Val Ser Ser Ala	Ile Ser Val Thr Thr	
24275	24280	24285	
tgt aga att gtg aac	ctc aca gaa aat gct	ggc tat tac ttc cg	73032
Cys Arg Ile Val Asn	Leu Thr Glu Asn Ala	Gly Tyr Tyr Phe Arg	
24290	24295	24300	
gtt tca gct cag aac	act ttc ggc atc agt	gac cct cta gaa gtg	73077
Val Ser Ala Gln Asn	Thr Phe Gly Ile Ser	Asp Pro Leu Glu Val	
24305	24310	24315	
tcc tca gtt gtg atc	att aag agt cca ttt	gaa aag cca ggt gct	73122
Ser Ser Val Val Ile	Ile Lys Ser Pro Phe	Glu Lys Pro Gly Ala	
24320	24325	24330	
cct ggc aaa cca act	att act gct gtc aca	aaa gat tct tgt gtt	73167
Pro Gly Lys Pro Thr	Ile Thr Ala Val Thr	Lys Asp Ser Cys Val	
24335	24340	24345	
gtg gcc tgg aag cca	cct gcc agt gat gga	ggt gca aag att aga	73212
Val Ala Trp Lys Pro	Pro Ala Ser Asp Gly	Gly Ala Lys Ile Arg	
24350	24355	24360	
aat tac tac ctt gag	aag cgt gag aag aag	cag aat aaa tgg att	73257
Asn Tyr Tyr Leu Glu	Lys Arg Glu Lys Lys	Gln Asn Lys Trp Ile	
24365	24370	24375	
tct gtg aca aca gaa	gaa att cga gaa act	gtc ttt tca gtg aaa	73302
Ser Val Thr Thr Glu	Glu Ile Arg Glu Thr	Val Phe Ser Val Lys	
24380	24385	24390	
aac ctt att gaa ggt	ctt gaa tac gag ttt	cgt gtg aaa tgt gaa	73347
Asn Leu Ile Glu Gly	Leu Glu Tyr Glu Phe	Arg Val Lys Cys Glu	
24395	24400	24405	
aat cta ggt ggg gaa	agt gaa tgg agt gaa	ata tca gaa ccc atc	73392
Asn Leu Gly Gly Glu	Ser Glu Trp Ser Glu	Ile Ser Glu Pro Ile	

24410	24415	24420	
act ccc aaa tct gat Thr Pro Lys Ser Asp 24425	gtc cca att cag gca Val Pro Ile Gln Ala 24430	cca cac ttt aaa gag Pro His Phe Lys Glu 24435	73437
gaa ctg aga aat cta Glu Leu Arg Asn Leu 24440	aat gtc aga tat cag Asn Val Arg Tyr Gln 24445	agc aat gct acc ttg Ser Asn Ala Thr Leu 24450	73482
gtc tgc aaa gtg act Val Cys Lys Val Thr 24455	ggt cat cca aaa cct Gly His Pro Lys Pro 24460	atc gtc aaa tgg tac Ile Val Lys Trp Tyr 24465	73527
aga caa ggc aaa gaa Arg Gln Gly Lys Glu 24470	atc att gca gat gga Ile Ile Ala Asp Gly 24475	tta aaa tat agg att Leu Lys Tyr Arg Ile 24480	73572
caa gaa ttt aag ggt Gln Glu Phe Lys Gly 24485	ggc tac cac cag ctc Gly Tyr His Gln Leu 24490	atc att gca agt gtc Ile Ile Ala Ser Val 24495	73617
aca gat gat gat gcc Thr Asp Asp Asp Ala 24500	aca gtt tac caa gtc Thr Val Tyr Gln Val 24505	aga gct acc aac caa Arg Ala Thr Asn Gln 24510	73662
ggg gga tct gtg tct Gly Gly Ser Val Ser 24515	ggc act gcc tcc ttg Gly Thr Ala Ser Leu 24520	gaa gtg gaa gtt cca Glu Val Glu Val Pro 24525	73707
gct aag ata cac tta Ala Lys Ile His Leu 24530	cct aaa act ctt gaa Pro Lys Thr Leu Glu 24535	ggc atg gga gca gtt Gly Met Gly Ala Val 24540	73752
cat gct ctc cga ggt His Ala Leu Arg Gly 24545	gaa gtg gtc agc atc Glu Val Val Ser Ile 24550	aag att cct ttc agt Lys Ile Pro Phe Ser 24555	73797
ggc aaa cca gat cct Gly Lys Pro Asp Pro 24560	gtg atc acc tgg cag Val Ile Thr Trp Gln 24565	aaa gga caa gat ctc Lys Gly Gln Asp Leu 24570	73842
att gac aat aat ggc Ile Asp Asn Asn Gly 24575	cac tac caa gtt att His Tyr Gln Val Ile 24580	gtc aca aga tcc ttc Val Thr Arg Ser Phe 24585	73887
aca tca ctt gtt ttc Thr Ser Leu Val Phe 24590	ccc aat ggg gta gag Pro Asn Gly Val Glu 24595	aga aaa gat gct ggt Arg Lys Asp Ala Gly 24600	73932
ttc tat gtg gtc tgt Phe Tyr Val Val Cys 24605	gct aaa aac aga ttt Ala Lys Asn Arg Phe 24610	gga att gat cag aag Gly Ile Asp Gln Lys 24615	73977
aca gtt gaa ctg gat Thr Val Glu Leu Asp 24620	gtg gct gat gtt cct Val Ala Asp Val Pro 24625	gac cca ccc aga gga Asp Pro Pro Arg Gly 24630	74022

gtc aaa gtt agt gat	gcc tca cga gat tct	gtc aac tta aca tgg	74067
Val Lys Val Ser Asp	Ala Ser Arg Asp Ser	Val Asn Leu Thr Trp	
24635	24640	24645	
act gag cca gcc tct	gat ggt ggc agc aaa	atc acc aac tac att	74112
Thr Glu Pro Ala Ser	Asp Gly Gly Ser Lys	Ile Thr Asn Tyr Ile	
24650	24655	24660	
gtt gaa aaa tgt gca	act act gca gaa aga	tgg ctc cgt gta gga	74157
Val Glu Lys Cys Ala	Thr Thr Ala Glu Arg	Trp Leu Arg Val Gly	
24665	24670	24675	
cag gcc cga gaa aca	cgt tat acc gtg atc	aac tta ttt gga aaa	74202
Gln Ala Arg Glu Thr	Arg Tyr Thr Val Ile	Asn Leu Phe Gly Lys	
24680	24685	24690	
aca agt tac cag ttc	cgg gta ata gct gaa	aat aaa ttt ggt ctg	74247
Thr Ser Tyr Gln Phe	Arg Val Ile Ala Glu	Asn Lys Phe Gly Leu	
24695	24700	24705	
agc aag cct tca gag	cct tca gaa cca acc	ata acc aaa gaa gat	74292
Ser Lys Pro Ser Glu	Pro Ser Glu Pro Thr	Ile Thr Lys Glu Asp	
24710	24715	24720	
aag acc aga gct atg	aac tat gat gaa gag	gta gat gaa acc agg	74337
Lys Thr Arg Ala Met	Asn Tyr Asp Glu Glu	Val Asp Glu Thr Arg	
24725	24730	24735	
gaa gtc tcc atg act	aaa gca tct cac tct	tca acc aag gaa ctc	74382
Glu Val Ser Met Thr	Lys Ala Ser His Ser	Ser Thr Lys Glu Leu	
24740	24745	24750	
tat gag aaa tat atg	att gct gaa gat ctt	ggg cgt ggt gag ttt	74427
Tyr Glu Lys Tyr Met	Ile Ala Glu Asp Leu	Gly Arg Gly Glu Phe	
24755	24760	24765	
gga att gtc cat cgt	tgt gtt gaa aca tcc	tca aag aag aca tac	74472
Gly Ile Val His Arg	Cys Val Glu Thr Ser	Ser Lys Lys Thr Tyr	
24770	24775	24780	
atg gcc aaa ttt gtt	aaa gtc aaa ggg act	gat cag gtt ttg gta	74517
Met Ala Lys Phe Val	Lys Val Lys Gly Thr	Asp Gln Val Leu Val	
24785	24790	24795	
aag aag gaa att tcc	att ctg aat att gct	agg cat aga aac atc	74562
Lys Lys Glu Ile Ser	Ile Leu Asn Ile Ala	Arg His Arg Asn Ile	
24800	24805	24810	
tta cac ctc cat gaa	tca ttt gaa agc atg	gaa gaa tta gtt atg	74607
Leu His Leu His Glu	Ser Phe Glu Ser Met	Glu Glu Leu Val Met	
24815	24820	24825	
atc ttt gag ttt ata	tca gga ctt gac ata	ttt gag cgc att aac	74652
Ile Phe Glu Phe Ile	Ser Gly Leu Asp Ile	Phe Glu Arg Ile Asn	
24830	24835	24840	
aca agt gct ttt gaa	ctt aat gaa aga gaa	att gta agt tat gtt	74697
Thr Ser Ala Phe Glu	Leu Asn Glu Arg Glu	Ile Val Ser Tyr Val	

24845	24850	24855	
cac cag gtc tgt gaa His Gln Val Cys Glu 24860	gca ctt cag ttt tta Ala Leu Gln Phe Leu 24865	cac agt cat aat att His Ser His Asn Ile 24870	74742
gga cac ttt gac att Gly His Phe Asp Ile 24875	aga cca gaa aat atc Arg Pro Glu Asn Ile 24880	att tac caa acc aga Ile Tyr Gln Thr Arg 24885	74787
aga agc tct acc att Arg Ser Ser Thr Ile 24890	aaa atc ata gaa ttt Lys Ile Ile Glu Phe 24895	ggt caa gcc cgt cag Gly Gln Ala Arg Gln 24900	74832
ctg aaa cca ggg gac Leu Lys Pro Gly Asp 24905	aac ttc agg ctt cta Asn Phe Arg Leu Leu 24910	ttc act gcc cca gaa Phe Thr Ala Pro Glu 24915	74877
tac tat gca cct gaa Tyr Tyr Ala Pro Glu 24920	gtc cac cag cat gat Val His Gln His Asp 24925	gtt gtc agc aca gcc Val Val Ser Thr Ala 24930	74922
aca gac atg tgg tca Thr Asp Met Trp Ser 24935	ctt gga aca ctg gta Leu Gly Thr Leu Val 24940	tat gtg cta ttg agt Tyr Val Leu Leu Ser 24945	74967
ggt atc aac cca ttc Gly Ile Asn Pro Phe 24950	ctg gct gaa act aac Leu Ala Glu Thr Asn 24955	caa cag atc att gag Gln Gln Ile Ile Glu 24960	75012
aat atc atg aat gct Asn Ile Met Asn Ala 24965	gaa tat act ttc gat Glu Tyr Thr Phe Asp 24970	tat gtg cta ttg agt Tyr Val Leu Leu Ser 24975	75057
gag att agc att gaa Glu Ile Ser Ile Glu 24980	gcc atg gat ttt gtt Ala Met Asp Phe Val 24985	gac cgg ttg tta gtg Asp Arg Leu Leu Val 24990	75102
aaa gag agg aaa tct Lys Glu Arg Lys Ser 24995	cgc atg aca gca tcg Arg Met Thr Ala Ser 25000	gag gct ctc cag cac Glu Ala Leu Gln His 25005	75147
cca tgg ttg aag cag Pro Trp Leu Lys Gln 25010	aag ata gaa aga gtc Lys Ile Glu Arg Val 25015	agt act aaa gtt atc Ser Thr Lys Val Ile 25020	75192
aga aca tta aaa cac Arg Thr Leu Lys His 25025	cgg cgt tat tac cac Arg Arg Tyr Tyr His 25030	acc ctg atc aag aaa Thr Leu Ile Lys Lys 25035	75237
gac ctc aac atg gtt Asp Leu Asn Met Val 25040	gtg tca gca gcc cgg Val Ser Ala Ala Arg 25045	atc tcc tgt ggt ggt Ile Ser Cys Gly Gly 25050	75282
gca att cga tct cag Ala Ile Arg Ser Gln 25055	aag gga gtg agt gtt Lys Gly Val Ser Val 25060	gct aaa gtt aaa gtg Ala Lys Val Lys Val 25065	75327

gca tcc att gaa att	ggc cca gtt tct ggg	cag ata atg cat gca	75372
Ala Ser Ile Glu Ile	Gly Pro Val Ser Gly	Gln Ile Met His Ala	
25070	25075	25080	
gtt ggt gaa gaa gga	gga cat gtc aaa tat	gta tgc aaa att gaa	75417
Val Gly Glu Glu Gly	Gly His Val Lys Tyr	Val Cys Lys Ile Glu	
25085	25090	25095	
aat tat gat cag tct	acc caa gtg act tgg	tac ttt ggt gtc cga	75462
Asn Tyr Asp Gln Ser	Thr Gln Val Thr Trp	Tyr Phe Gly Val Arg	
25100	25105	25110	
cag ctg gag aac agt	gag aaa tac gaa atc	acc tac gaa gat gga	75507
Gln Leu Glu Asn Ser	Glu Lys Tyr Glu Ile	Thr Tyr Glu Asp Gly	
25115	25120	25125	
gtg gcc atc ctc tat	gtc aaa gac att acc	aaa tta gat gat ggt	75552
Val Ala Ile Leu Tyr	Val Lys Asp Ile Thr	Lys Leu Asp Asp Gly	
25130	25135	25140	
acc tac aga tgc aaa	gta gtc aat gac tat	ggt gaa gac agt tct	75597
Thr Tyr Arg Cys Lys	Val Val Asn Asp Tyr	Gly Glu Asp Ser Ser	
25145	25150	25155	
tat gca gag cta ttt	gtt aaa ggt gtg aga	gaa gtc tat gac tat	75642
Tyr Ala Glu Leu Phe	Val Lys Gly Val Arg	Glu Val Tyr Asp Tyr	
25160	25165	25170	
tac tgc cgt aga acc	atg aag aaa att aag	cgc aga aca gac aca	75687
Tyr Cys Arg Arg Thr	Met Lys Lys Ile Lys	Arg Arg Thr Asp Thr	
25175	25180	25185	
atg aga ctc ctg gaa	agg cca cca gaa ttt	acc ctg cct ctc tat	75732
Met Arg Leu Leu Glu	Arg Pro Pro Glu Phe	Thr Leu Pro Leu Tyr	
25190	25195	25200	
aat aag aca gct tat	gta ggt gaa aat gtc	cgg ttt gga gta act	75777
Asn Lys Thr Ala Tyr	Val Gly Glu Asn Val	Arg Phe Gly Val Thr	
25205	25210	25215	
ata act gtc cac cca	gag cct cat gta aca	tgg tat aaa tca ggt	75822
Ile Thr Val His Pro	Glu Pro His Val Thr	Trp Tyr Lys Ser Gly	
25220	25225	25230	
cag aaa atc aaa cca	ggt gac aat gac aag	aag tac aca ttt gag	75867
Gln Lys Ile Lys Pro	Gly Asp Asn Asp Lys	Lys Tyr Thr Phe Glu	
25235	25240	25245	
tca gac aag ggt ctt	tac caa tta aca atc	aac agt gtc act aca	75912
Ser Asp Lys Gly Leu	Tyr Gln Leu Thr Ile	Asn Ser Val Thr Thr	
25250	25255	25260	
gat gat gac gct gaa	tat act gtt gtg gca	agg aac aaa tat ggt	75957
Asp Asp Asp Ala Glu	Tyr Thr Val Val Ala	Arg Asn Lys Tyr Gly	
25265	25270	25275	
gaa gac agc tgt aaa	gca aag ctg aca gta	acc cta cac cca cct	76002
Glu Asp Ser Cys Lys	Ala Lys Leu Thr Val	Thr Leu His Pro Pro	

25280	25285	25290	
cca aca gat agt acc Pro Thr Asp Ser Thr 25295	tta aga ccc atg ttc Leu Arg Pro Met Phe 25300	aaa agg tta ctg gca Lys Arg Leu Leu Ala 25305	76047
aat gca gaa tgc caa Asn Ala Glu Cys Gln 25310	gaa ggc caa agt gtc Glu Gly Gln Ser Val 25315	tgc ttt gag atc aga Cys Phe Glu Ile Arg 25320	76092
gtg tct ggc atc ccc Val Ser Gly Ile Pro 25325	cca cca aca tta aaa Pro Pro Thr Leu Lys 25330	tgg gag aaa gat ggt Trp Glu Lys Asp Gly 25335	76137
cag cca ctg tcc ctc Gln Pro Leu Ser Leu 25340	ggg cct aac att gaa Gly Pro Asn Ile Glu 25345	att atc cat gaa ggc Ile Ile His Glu Gly 25350	76182
ttg gat tat tat gct Leu Asp Tyr Tyr Ala 25355	ctg cac atc agg gac Leu His Ile Arg Asp 25360	act ttg cct gaa gac Thr Leu Pro Glu Asp 25365	76227
acg ggt tat tat aga Thr Gly Tyr Tyr Arg 25370	gtc aca gcc act aac Val Thr Ala Thr Asn 25375	aca gct ggg tcc acc Thr Ala Gly Ser Thr 25380	76272
agc tgc cag gct cac Ser Cys Gln Ala His 25385	cta caa gtg gaa cgc Leu Gln Val Glu Arg 25390	ctg agg tac aag aaa Leu Arg Tyr Lys Lys 25395	76317
cag gaa ttc aag agt Gln Glu Phe Lys Ser 25400	aag gag gag cat gag Lys Glu Glu His Glu 25405	cga cac gta caa aaa Arg His Val Gln Lys 25410	76362
caa att gac aaa acc Gln Ile Asp Lys Thr 25415	ctc aga atg gct gaa Leu Arg Met Ala Glu 25420	att ctt tct gga act Ile Leu Ser Gly Thr 25425	76407
gaa agt gta cca ctg Glu Ser Val Pro Leu 25430	aca cag gta gct aaa Thr Gln Val Ala Lys 25435	gag gct ctg aga gaa Glu Ala Leu Arg Glu 25440	76452
gct gct gtc ctt tat Ala Ala Val Leu Tyr 25445	aaa ccg gct gta agc Lys Pro Ala Val Ser 25450	acc aag act gta aaa Thr Lys Thr Val Lys 25455	76497
ggg gaa ttc aga ctt Gly Glu Phe Arg Leu 25460	gag ata gaa gaa aag Glu Ile Glu Glu Lys 25465	aag gag gag aga aaa Lys Glu Glu Arg Lys 25470	76542
ctc cgg atg cct tat Leu Arg Met Pro Tyr 25475	gat gta cca gag cca Asp Val Pro Glu Pro 25480	cgc aag tat aag cag Arg Lys Tyr Lys Gln 25485	76587
act acc ata gaa gaa Thr Thr Ile Glu Glu 25490	gac caa cgc atc aag Asp Gln Arg Ile Lys 25495	cag ttc gtg ccc atg Gln Phe Val Pro Met 25500	76632

tct gac atg aag tgg	tat aaa aag ata cgt	gat cag tat gaa atg	76677
Ser Asp Met Lys Trp	Tyr Lys Lys Ile Arg	Asp Gln Tyr Glu Met	
25505	25510	25515	
cct ggg aaa ctt gac	aga gtt gta cag aaa	cga ccc aag cgc atc	76722
Pro Gly Lys Leu Asp	Arg Val Val Gln Lys	Arg Pro Lys Arg Ile	
25520	25525	25530	
cgc ctt tca aga tgg	gaa cag ttc tat gtg	atg cct ctt cca cgc	76767
Arg Leu Ser Arg Trp	Glu Gln Phe Tyr Val	Met Pro Leu Pro Arg	
25535	25540	25545	
att aca gat caa tac	aga cct aaa tgg cgt	att cct aaa ctg tcc	76812
Ile Thr Asp Gln Tyr	Arg Pro Lys Trp Arg	Ile Pro Lys Leu Ser	
25550	25555	25560	
caa gat gat ctt gag	ata gtg aga cca gcc	cgc cgg cgt aca cct	76857
Gln Asp Asp Leu Glu	Ile Val Arg Pro Ala	Arg Arg Arg Thr Pro	
25565	25570	25575	
tct cct gat tat gac	ttt tac tac cga cct	aga aga cgt tct ctt	76902
Ser Pro Asp Tyr Asp	Phe Tyr Tyr Arg Pro	Arg Arg Arg Ser Leu	
25580	25585	25590	
ggg gac atc tct gat	gaa gaa tta ctc ctc	ccc att gat gac tac	76947
Gly Asp Ile Ser Asp	Glu Glu Leu Leu Leu	Pro Ile Asp Asp Tyr	
25595	25600	25605	
tta gca atg aaa aga	aca gag gaa gag agg	ctg cgt ctt gaa gaa	76992
Leu Ala Met Lys Arg	Thr Glu Glu Glu Arg	Leu Arg Leu Glu Glu	
25610	25615	25620	
gag ctt gag tta ggt	ttt tca gct tca ccc	cca agt cga agc cct	77037
Glu Leu Glu Leu Gly	Phe Ser Ala Ser Pro	Pro Ser Arg Ser Pro	
25625	25630	25635	
cca cac ttt gag ctt	tct agc cta cgt tac	tct tca cca caa gct	77082
Pro His Phe Glu Leu	Ser Ser Leu Arg Tyr	Ser Ser Pro Gln Ala	
25640	25645	25650	
cat gtc aag gtg gag	gaa aca aga aaa aac	ttc agg tat tca acc	77127
His Val Lys Val Glu	Glu Thr Arg Lys Asn	Phe Arg Tyr Ser Thr	
25655	25660	25665	
tat cac atc cca acg	aag gct gaa gct agt	aca agt tat gca gaa	77172
Tyr His Ile Pro Thr	Lys Ala Glu Ala Ser	Thr Ser Tyr Ala Glu	
25670	25675	25680	
ctg agg gaa cgg cat	gcc cag gct gcg tac	aga cag cca aag caa	77217
Leu Arg Glu Arg His	Ala Gln Ala Ala Tyr	Arg Gln Pro Lys Gln	
25685	25690	25695	
cgg caa aga atc atg	gct gag agg gag gat	gaa gag ttg ctt cgc	77262
Arg Gln Arg Ile Met	Ala Glu Arg Glu Asp	Glu Glu Leu Leu Arg	
25700	25705	25710	
cca gtt acg acc acc	cag cat ctc tca gaa	tac aaa agc gaa ctt	77307
Pro Val Thr Thr	Gln His Leu Ser Glu	Tyr Lys Ser Glu Leu	

25715	25720	25725	
gac ttc atg tca aag Asp Phe Met Ser Lys 25730	gag gaa aag tct aga Glu Glu Lys Ser Arg 25735	aag aaa tca agg cga Lys Lys Ser Arg Arg 25740	77352
caa aga gaa gtg aca Gln Arg Glu Val Thr 25745	gaa ata aca gaa att Glu Ile Thr Glu Ile 25750	gag gaa gaa tac gaa Glu Glu Glu Tyr Glu 25755	77397
atc tca aaa cat gct Ile Ser Lys His Ala 25760	caa aga gaa tca tcc Gln Arg Glu Ser Ser 25765	tca tct gcg tct aga Ser Ser Ala Ser Arg 25770	77442
cta ctg aga cga cgg Leu Leu Arg Arg Arg 25775	cgc tcc ctg tct cca Arg Ser Leu Ser Pro 25780	act tat att gag tta Thr Tyr Ile Glu Leu 25785	77487
atg agg cca gtg tct Met Arg Pro Val Ser 25790	gag ctg atc cggtca Glu Leu Ile Arg Ser 25795	cgt cca caa ccg gct Arg Pro Gln Pro Ala 25800	77532
gag gaa tac gaa gat Glu Glu Tyr Glu Asp 25805	gac aca gaa aga agg Asp Thr Glu Arg Arg 25810	tca cct act cca gag Ser Pro Thr Pro Glu 25815	77577
aga act cgc cca cga Arg Thr Arg Pro Arg 25820	tcc ccc agc cct gtg Ser Pro Ser Pro Val 25825	tct agt gag aga tca Ser Ser Glu Arg Ser 25830	77622
ctc tcg aga ttt gag Leu Ser Arg Phe Glu 25835	agg tct gca aga ttt Arg Ser Ala Arg Phe 25840	gat atc ttt tcc agg Asp Ile Phe Ser Arg 25845	77667
tat gag tcc atg aaa Tyr Glu Ser Met Lys 25850	gct gct tta aaa act Ala Ala Leu Lys Thr 25855	cag aag aca tca gaa Gln Lys Thr Ser Glu 25860	77712
agg aag tat gaa gtt Arg Lys Tyr Glu Val 25865	ttg agt cag cag cct Leu Ser Gln Gln Pro 25870	ttc aca ctg gac cat Phe Thr Leu Asp His 25875	77757
gcc cct cga atc aca Ala Pro Arg Ile Thr 25880	ctg aga atg cgc tcg Leu Arg Met Arg Ser 25885	cac agg gta cca tgt His Arg Val Pro Cys 25890	77802
ggc caa aat aca cgt Gly Gln Asn Thr Arg 25895	ttt att tta aat gtt Phe Ile Leu Asn Val 25900	cag tct aag cca act Gln Ser Lys Pro Thr 25905	77847
gcc gag gtt aaa tgg Ala Glu Val Lys Trp 25910	tac cac aat ggt gtg Tyr His Asn Gly Val 25915	gaa ctc caa gaa agc Glu Leu Gln Glu Ser 25920	77892
agt aag att cat tac Ser Lys Ile His Tyr 25925	acc aac acg agt gga Thr Asn Thr Ser Gly 25930	gtc ctc acc ctg gaa Val Leu Thr Leu Glu 25935	77937

att ctg gac tgt cat	act gat gac agt gga	acc tac cgt gct gtg	77982
Ile Leu Asp Cys His	Thr Asp Asp Ser Gly	Thr Tyr Arg Ala Val	
25940	25945	25950	
tgc acc aac tac aag	ggc gaa gct tct gac	tat gca acg ttg gac	78027
Cys Thr Asn Tyr Lys	Gly Glu Ala Ser Asp	Tyr Ala Thr Leu Asp	
25955	25960	25965	
gtg aca gga ggg gat	tat acc acc tat gct	tcc caa cgc aga gat	78072
Val Thr Gly Gly Asp	Tyr Thr Thr Tyr Ala	Ser Gln Arg Arg Asp	
25970	25975	25980	
gaa gag gtc ccc aga	tct gtt ttc cct gag	ctg aca aga aca gag	78117
Glu Glu Val Pro Arg	Ser Val Phe Pro Glu	Leu Thr Arg Thr Glu	
25985	25990	25995	
gcg tat gct gtt cca	tca ttt aag aaa aca	tct gag atg gaa gct	78162
Ala Tyr Ala Val Pro	Ser Phe Lys Lys Thr	Ser Glu Met Glu Ala	
26000	26005	26010	
tcg tct tct gtc agg	gaa gtg aaa tca cag	atg acg gag aca agg	78207
Ser Ser Ser Val Arg	Glu Val Lys Ser Gln	Met Thr Glu Thr Arg	
26015	26020	26025	
gaa agt ctc tcc tca	tat gaa cac tct gca	tct gca gaa atg aaa	78252
Glu Ser Leu Ser Ser	Tyr Glu His Ser Ala	Ser Ala Glu Met Lys	
26030	26035	26040	
agt gct gca tta gaa	gaa aag tca ctg gaa	gaa aaa tcc aca acc	78297
Ser Ala Ala Leu Glu	Glu Lys Ser Leu Glu	Glu Lys Ser Thr Thr	
26045	26050	26055	
aga aag atc aag acg	act ttg gca gca aga	att cta aca aag cca	78342
Arg Lys Ile Lys Thr	Thr Leu Ala Ala Arg	Ile Leu Thr Lys Pro	
26060	26065	26070	
cgg tcc atg acc gtc	tac gag ggc gag tct	gca agg ttt tct tgt	78387
Arg Ser Met Thr Val	Tyr Glu Gly Glu Ser	Ala Arg Phe Ser Cys	
26075	26080	26085	
gac acc gat ggt gag	ccg gta cca act gtg	acc tgg ctg cgt aaa	78432
Asp Thr Asp Gly Glu	Pro Val Pro Thr Val	Thr Trp Leu Arg Lys	
26090	26095	26100	
gga caa gtg cta agt	act tct gcc cgc cac	caa gtg acc acc aca	78477
Gly Gln Val Leu Ser	Thr Ser Ala Arg His	Gln Val Thr Thr Thr	
26105	26110	26115	
aag tac aaa tca acc	ttt gag atc tct tca	gtc cag gct tcc gat	78522
Lys Tyr Lys Ser Thr	Phe Glu Ile Ser Ser	Val Gln Ala Ser Asp	
26120	26125	26130	
gag ggc aat tac agc	gtg gtg gta gaa aac	agt gaa ggg aaa caa	78567
Glu Gly Asn Tyr Ser	Val Val Val Glu Asn	Ser Glu Gly Lys Gln	
26135	26140	26145	
gaa gca gag ttc act	ctg act att caa aag	gcc agg gta act gaa	78612
Glu Ala Glu Phe Thr	Leu Thr Ile Gln Lys	Ala Arg Val Thr Glu	

26150	26155	26160	
aag gct gtg aca tca Lys Ala Val Thr Ser 26165	cca cca aga gtc aaa Pro Pro Arg Val Lys 26170	tcc cca gag cct cgg Ser Pro Glu Pro Arg 26175	78657
gtg aaa tcc cca gaa Val Lys Ser Pro Glu 26180	gca gtt aag tct cca Ala Val Lys Ser Pro 26185	aaa cga gtg aaa tct Lys Arg Val Lys Ser 26190	78702
cca gaa cct tct cac Pro Glu Pro Ser His 26195	ccg aaa gcc gta tca Pro Lys Ala Val Ser 26200	ccc aca gag aca aaa Pro Thr Glu Thr Lys 26205	78747
cca aca cca aga gag Pro Thr Pro Arg Glu 26210	aaa gtt cag cac ctc Lys Val Gln His Leu 26215	cca gtc tct gcc cca Pro Val Ser Ala Pro 26220	78792
cca aag att act cag Pro Lys Ile Thr Gln 26225	ttc ctg aaa gca gaa Phe Leu Lys Ala Glu 26230	gct tct aaa gag att Ala Ser Lys Glu Ile 26235	78837
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gaa act aag aaa tca Glu Thr Lys Lys Ser 26330	gat cag aaa acc act Asp Gln Lys Thr Thr 26335	gag tca aca gta acc Glu Ser Thr Val Thr 26340	79152
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gta att gtt act ggg Val Ile Val Thr Gly 26360	ttg cag gat aca act Leu Gln Asp Thr Thr 26365	gtt tct tca gac agt Val Ser Ser Asp Ser 26370	79242

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Val Ala Lys Phe Ala	Val Lys Ala Thr Gly	Glu Pro Arg Pro Thr	
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Ala Ile Trp Thr Lys	Asp Gly Lys Ala Ile	Thr Gln Gly Gly Lys	
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Tyr Lys Leu Ser Glu	Asp Lys Gly Gly Phe	Phe Leu Glu Ile His	
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Lys Thr Asp Thr Ser	Asp Ser Gly Leu Tyr	Thr Cys Thr Val Lys	
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Asn Ser Ala Gly Ser	Val Ser Ser Ser Cys	Lys Leu Thr Ile Lys	
26435	26440	26445	
gct ata aaa gat act	gag gca cag aaa gtc	tct aca caa aag act	79512
Ala Ile Lys Asp Thr	Glu Ala Gln Lys Val	Ser Thr Gln Lys Thr	
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Ser Glu Ile Thr Pro	Gln Lys Lys Ala Val	Val Gln Glu Glu Ile	
26465	26470	26475	
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Ser Gln Lys Ala Leu	Arg Ser Glu Glu Ile	Lys Met Ser Glu Ala	
26480	26485	26490	
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Lys Ser Gln Glu Lys	Leu Ala Leu Lys Glu	Glu Ala Ser Lys Val	
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Leu Ile Ser Glu Glu	Val Lys Lys Ser Ala	Ala Thr Ser Leu Glu	
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Lys Ser Ile Val His	Glu Glu Ile Thr Lys	Thr Ser Gln Ala Ser	
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Glu Glu Val Arg Thr	His Ala Glu Ile Lys	Ala Phe Ser Thr Gln	
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Met Ser Ile Asn Glu	Gly Gln Arg Leu Val	Leu Lys Ala Asn Ile	
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Ala Gly Ala Thr Asp	Val Lys Trp Val Leu	Asn Gly Val Glu Leu	
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Thr Asn Ser Glu Glu	Tyr Arg Tyr Gly Val	Ser Gly Ser Asp Gln	

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gat ttg aca ctg agc Asp Leu Thr Leu Ser 26630	aaa gaa ctc tca gat Lys Glu Leu Ser Asp 26635	gct cca gcc ttc atc Ala Pro Ala Phe Ile 26640	80052
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Lys Met Leu Lys Ala	Gly Ile Arg Gly Ile	Pro Pro Lys Ile Glu	
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Ala Leu Pro Ser Asp	Ile Ser Ile Asp Glu	Gly Lys Val Leu Thr	
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Val Ala Cys Ala Phe	Thr Gly Glu Pro Thr	Pro Glu Val Thr Trp	
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Ser Cys Gly Gly Arg	Lys Ile His Ser Gln	Glu Gln Gly Arg Phe	
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His Ile Glu Asn Thr	Asp Asp Leu Thr	Leu Ile Ile Met Asp	
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Glu Phe Gly Ser Asp	Ser Ala Thr Val Asn	Ile His Ile Arg Ser	
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<212> PRT

<213> Homo sapiens

<400> 2

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35 40 45

Ser Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys
50 55 60

Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu
65 70 75 80

Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
85 90 95

Val Lys Ala Glu Thr Ala Pro Pro Asn Phe Val Gln Arg Leu Gln Ser
100 105 110

Met Thr Val Arg Gln Gly Ser Gln Val Arg Leu Gln Val Arg Val Thr
115 120 125

Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Ala Glu Ile

130

135

140

Gln Ser Ser Leu Asp Phe Gln Ile Ser Gln Glu Gly Asp Leu Tyr Ser
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Leu Leu Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val
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Asn Ala Thr Asn Ser Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu
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Val Gln Gly Glu Glu Val Pro Ala Lys Lys Thr Lys Thr Ile Val
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Ser Thr Ala Gln Ile Ser Glu Ser Arg Gln Thr Arg Ile Glu Lys Lys
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245 250 255

Ile Pro Pro Lys Pro Lys Ser Arg Ser Pro Thr Pro Pro Ser Ile Ala
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Ala Lys Ala Gln Leu Ala Arg Gln Gln Ser Pro Ser Pro Ile Arg His
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Ser Pro Ser Pro Val Arg His Val Arg Ala Pro Thr Pro Ser Pro Val
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Arg Ser Val Ser Pro Ala Ala Arg Ile Ser Thr Ser Pro Ile Arg Ser
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Val Arg Ser Pro Leu Leu Met Arg Lys Thr Gln Ala Ser Thr Val Ala
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Thr Gly Pro Glu Val Pro Pro Pro Trp Lys Gln Glu Gly Tyr Val Ala
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Gln Ile Arg Thr Glu Glu Arg Trp Glu Gly Arg Tyr Gly Val Gln Glu
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Lys Gln Asp Ala Asp Lys Ser Ala Ala Val Ala Thr Val Val Ala Ala
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Val Asp Met Ala Arg Val Arg Glu Pro Val Ile Ser Ala Val Glu Gln
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Thr Ala Gln Arg Thr Thr Thr Ala Val His Ile Gln Pro Ala Gln
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Glu Gln Val Arg Lys Glu Ala Glu Lys Thr Ala Val Thr Lys Val Val
465 470 475 480

Val Ala Ala Asp Lys Ala Lys Glu Gln Glu Leu Lys Ser Arg Thr Lys
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Glu Ile Ile Thr Thr Lys Gln Glu Gln Met His Val Thr His Glu Gln
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Ile Arg Lys Glu Thr Glu Lys Thr Phe Val Pro Lys Val Val Ile Ser
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Ala Ala Lys Ala Lys Glu Gln Glu Thr Arg Ile Ser Glu Glu Ile Thr
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Lys Lys Gln Lys Gln Val Thr Gln Glu Ala Ile Met Lys Glu Thr Arg
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Gln Asp Leu Val Ser Arg Gly Arg Glu Gly Ile Thr Thr Lys Arg Glu
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Gln Val Thr His Gly Lys Val Asp Val Gly Lys Lys Ala Glu Ala Val
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Glu Pro Gly His Leu Glu Glu Ser Tyr Ala Gln Gln Thr Thr Leu Glu
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Tyr Gly Tyr Lys Glu Arg Ile Ser Ala Ala Lys Val Ala Glu Pro Pro
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Gln Arg Pro Ala Ser Glu Pro His Val Val Pro Lys Ala Val Lys Pro
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Arg Val Ile Gln Ala Pro Ser Glu Thr His Ile Lys Thr Thr Asp Gln
725 730 735

Lys Gly Met His Ile Ser Ser Gln Ile Lys Lys Thr Thr Asp Leu Thr
740 745 750

Thr Glu Arg Leu Val His Val Asp Lys Arg Pro Arg Thr Ala Ser Pro
755 760 765

His Phe Thr Val Ser Lys Ile Ser Val Pro Lys Thr Glu His Gly Tyr
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Glu Ala Ser Ile Ala Gly Ser Ala Ile Ala Thr Leu Gln Lys Glu Leu
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Ser Ala Thr Ser Ser Ala Gln Lys Ile Thr Lys Ser Val Lys Ala Pro
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845

Gly Val Glu Val Lys Lys Glu Val Gly Val Ser Ile Thr Gly Thr Thr
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Ala Glu Asp Ser Gly Arg Phe Thr Cys Ser Ala Val Asn Glu Ala Gly
965 970 975

Thr Val Ser Thr Ser Cys Tyr Leu Ala Val Gln Val Ser Glu Glu Phe
980 985 990

Glu Lys Glu Thr Thr Ala Val Thr Glu Lys Phe Thr Thr Glu Glu Lys
995 1000 1005

Arg Phe Val Glu Ser Arg Asp Val Val Met Thr Asp Thr Ser Leu
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Trp Lys Lys Ser Gly Val Pro Leu Thr Thr Gly Tyr Arg Tyr Lys
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Lys Gly Glu Ala Ala Leu Lys Ile Asp Ser Thr Val Ser Gln Asp
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Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu Thr Pro Ile
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His Tyr Leu Asp Ile Val Asp Cys Lys Ser Tyr Asp Thr Gly Glu
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Val Lys Val Thr Ala Glu Asn Pro Glu Gly Val Ile Glu His Lys
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Val Lys Leu Glu Ile Gln Gln Arg Glu Asp Phe Arg Ser Val Leu
1880 1885 1890

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Gly Lys Leu Gln Phe Glu Val Gln Lys Val Asp Arg Pro Val Asp
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Lys Phe Lys Arg Arg Thr Glu Glu Gly Tyr Tyr Glu Ala Ile Thr
1955 1960 1965

Ala Val Glu Leu Lys Ser Arg Lys Lys Asp Glu Ser Tyr Glu Glu
1970 1975 1980

Leu Leu Arg Lys Thr Lys Asp Glu Leu Leu His Trp Thr Lys Glu
1985 1990 1995

Leu Thr Glu Glu Glu Lys Lys Ala Leu Ala Glu Glu Gly Lys Ile
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Thr Ile Pro Thr Phe Lys Pro Asp Lys Ile Glu Leu Ser Pro Ser
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2165

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Leu Asn Asp Glu Gln Ile Lys Pro Asp Asp Arg Val Gln Ala Ile
2435 2440 2445

Val Lys Gly Thr Lys Gln Arg Leu Val Ile Asn Arg Thr His Ala
2450 2455 2460

Ser Asp Glu Gly Pro Tyr Lys Leu Ile Val Gly Arg Val Glu Thr
2465 2470 2475

Asn Cys Asn Leu Ser Val Glu Lys Ile Lys Ile Ile Arg Gly Leu
2480 2485 2490

Arg Asp Leu Thr Cys Thr Glu Thr Gln Asn Val Val Phe Glu Val
2495 2500 2505

Glu Leu Ser His Ser Gly Ile Asp Val Leu Trp Asn Phe Lys Asp
2510 2515 2520

Lys Glu Ile Lys Pro Ser Ser Lys Tyr Lys Ile Glu Ala His Gly
2525 2530 2535

Lys Ile Tyr Lys Leu Thr Val Leu Asn Met Met Lys Asp Asp Glu
2540 2545 2550

Gly Lys Tyr Thr Phe Tyr Ala Gly Glu Asn Met Thr Ser Gly Lys
2555 2560 2565

Leu Thr Val Ala Gly Ala Ile Ser Lys Pro Leu Thr Asp Gln
2570 2575 2580

Thr Val Ala Glu Ser Gln Glu Ala Val Phe Glu Cys Glu Val Ala
2585 2590 2595

Asn Pro Asp Ser Lys Gly Glu Trp Leu Arg Asp Gly Lys His Leu
2600 2605 2610

Pro Leu Thr Asn Asn Ile Arg Ser Glu Ser Asp Gly His Lys Arg
2615 2620 2625

Arg Leu Ile Ile Ala Ala Thr Lys Leu Asp Asp Ile Gly Glu Tyr
2630 2635 2640

Thr Tyr Lys Val Ala Thr Ser Lys Thr Ser Ala Lys Leu Lys Val
2645 2650 2655

Glu Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu Thr Val Thr
2660 2665 2670

Glu Thr Gln Asp Ala Val Phe Thr Val Glu Leu Thr His Pro Asn
2675 2680 2685

Val Lys Gly Val Gln Trp Ile Lys Asn Gly Val Val Leu Glu Ser
2690 2695 2700

Asn Glu Lys Tyr Ala Ile Ser Val Lys Gly Thr Ile Tyr Ser Leu
2705 2710 2715

Arg Ile Lys Asn Cys Ala Ile Val Asp Glu Ser Val Tyr Gly Phe
2720 2725 2730

Arg Leu Gly Arg Leu Gly Ala Ser Ala Arg Leu His Val Glu Thr
2735 2740 2745

Val Lys Ile Ile Lys Lys Pro Lys Asp Val Thr Ala Leu Glu Asn
2750 2755 2760

Ala Thr Val Ala Phe Glu Val Ser Val Ser His Asp Thr Val Pro
2765 2770 2775

Val Lys Trp Phe His Lys Ser Val Glu Ile Lys Pro Ser Asp Lys
2780 2785 2790

His Arg Leu Val Ser Glu Arg Lys Val His Lys Leu Met Leu Gln
2795 2800 2805

Asn Ile Ser Pro Ser Asp Ala Gly Glu Tyr Thr Ala Val Val Gly
2810 2815 2820

Gln Leu Glu Cys Lys Ala Lys Leu Phe Val Glu Thr Leu His Ile

2825

2830

2835

Thr Lys Thr Met Lys Asn Ile Glu Val Pro Glu Thr Lys Thr Ala
2840 2845 2850

Ser Phe Glu Cys Glu Val Ser His Phe Asn Val Pro Ser Met Trp
2855 2860 2865

Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys Phe Lys Ile
2870 2875 2880

Val Val Gln Gly Lys Leu His Gln Leu Ile Ile Met Asn Thr Ser
2885 2890 2895

Thr Glu Asp Ser Ala Glu Tyr Thr Phe Val Cys Gly Asn Asp Gln
2900 2905 2910

Val Ser Ala Thr Leu Thr Val Thr Pro Ile Met Ile Thr Ser Met
2915 2920 2925

Leu Lys Asp Ile Asn Ala Glu Glu Lys Asp Thr Ile Thr Phe Glu
2930 2935 2940

Val Thr Val Asn Tyr Glu Gly Ile Ser Tyr Lys Trp Leu Lys Asn
2945 2950 2955

Gly Val Glu Ile Lys Ser Thr Asp Lys Cys Gln Met Arg Thr Lys
2960 2965 2970

Lys Leu Thr His Ser Leu Asn Ile Arg Asn Val His Phe Gly Asp
2975 2980 2985

Ala Ala Asp Tyr Thr Phe Val Ala Gly Lys Ala Thr Ser Thr Ala
2990 2995 3000

Thr Leu Tyr Val Glu Ala Arg His Ile Glu Phe Arg Lys His Ile
3005 3010 3015

Lys Asp Ile Lys Val Leu Glu Lys Lys Arg Ala Met Phe Glu Cys
3020 3025 3030

Glu Val Ser Glu Pro Asp Ile Thr Val Gln Trp Met Lys Asp Asp
3035 3040 3045

Gln Glu Leu Gln Ile Thr Asp Arg Ile Lys Ile Gln Lys Glu Lys
3050 3055 3060

Tyr Val His Arg Leu Leu Ile Pro Ser Thr Arg Met Ser Asp Ala
3065 3070 3075

Gly Lys Tyr Thr Val Val Ala Gly Gly Asn Val Ser Thr Ala Lys
3080 3085 3090

Leu Phe Val Glu Gly Arg Asp Val Arg Ile Arg Ser Ile Lys Lys
3095 3100 3105

Glu Val Gln Val Ile Glu Lys Gln Arg Ala Val Val Glu Phe Glu
3110 3115 3120

Val Asn Glu Asp Asp Val Asp Ala His Trp Tyr Lys Asp Gly Ile
3125 3130 3135

Glu Ile Asn Phe Gln Val Gln Glu Arg His Lys Tyr Val Val Glu
3140 3145 3150

Arg Arg Ile His Arg Met Phe Ile Ser Glu Thr Arg Gln Ser Asp
3155 3160 3165

Ala Gly Glu Tyr Thr Phe Val Ala Gly Arg Asn Arg Ser Ser Val
3170 3175 3180

Thr Leu Tyr Val Asn Ala Pro Glu Pro Pro Gln Val Leu Gln Glu
3185 3190 3195

Leu Gln Pro Val Thr Val Gln Ser Gly Lys Pro Ala Arg Phe Cys
3200 3205 3210

Ala Met Ile Ser Gly Arg Pro Gln Pro Lys Ile Ser Trp Tyr Lys
3215 3220 3225

Glu Glu Gln Leu Leu Ser Thr Gly Phe Lys Cys Lys Phe Leu His
3230 3235 3240

Asp Gly Gln Glu Tyr Thr Leu Leu Ile Glu Ala Phe Pro Glu
3245 3250 3255

Asp Ala Ala Val Tyr Thr Cys Glu Ala Lys Asn Asp Tyr Gly Val
3260 3265 3270

Ala Thr Thr Ser Ala Ser Leu Ser Val Glu Val Val Pro Glu Val Val
3275 3280 3285

Ser Pro Asp Gln Glu Met Pro Val Tyr Pro Pro Ala Ile Ile Thr
3290 3295 3300

Pro Leu Gln Asp Thr Val Thr Ser Glu Gly Gln Pro Ala Arg Phe
3305 3310 3315

Gln Cys Arg Val Ser Gly Thr Asp Leu Lys Val Ser Trp Tyr Ser
3320 3325 3330

Lys Asp Lys Lys Ile Lys Pro Ser Arg Phe Phe Arg Met Thr Gln
3335 3340 3345

Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala Tyr Pro Glu
3350 3355 3360

Asp Glu Gly Thr Tyr Thr Phe Val Ala Asn Asn Ala Val Gly Gln
3365 3370 3375

Val Ser Ser Thr Ala Asn Leu Ser Leu Glu Ala Pro Glu Ser Ile
3380 3385 3390

Leu His Glu Arg Ile Glu Gln Glu Ile Glu Met Glu Met Lys Glu
3395 3400 3405

Phe Ser Ser Ser Phe Leu Ser Ala Glu Glu Glu Gly Leu His Ser
3410 3415 3420

Ala Glu Leu Gln Leu Ser Lys Ile Asn Glu Thr Leu Glu Leu Leu
3425 3430 3435

Ser Glu Ser Pro Val Tyr Pro Thr Lys Phe Asp Ser Glu Lys Glu
3440 3445 3450

Gly Thr Gly Pro Ile Phe Ile Lys Glu Val Ser Asn Ala Asp Ile
3455 3460 3465

Ser Met Gly Asp Val Ala Thr Leu Ser Val Thr Val Ile Gly Ile
3470 3475 3480

Pro Lys Pro Lys Ile Gln Trp Phe Phe Asn Gly Val Leu Leu Thr

3485

3490

3495

Pro Ser Ala Asp Tyr Lys Phe Val Phe Asp Gly Asp Asp His Ser
3500 3505 3510

Leu Ile Ile Leu Phe Thr Lys Leu Glu Asp Glu Gly Glu Tyr Thr
3515 3520 3525

Cys Met Ala Ser Asn Asp Tyr Gly Lys Thr Ile Cys Ser Ala Tyr
3530 3535 3540

Leu Lys Ile Asn Ser Lys Gly Glu Gly His Lys Asp Thr Glu Thr
3545 3550 3555

Glu Ser Ala Val Ala Lys Ser Leu Glu Lys Leu Gly Gly Pro Cys
3560 3565 3570

Pro Pro His Phe Leu Lys Glu Leu Lys Pro Ile Arg Cys Ala Gln
3575 3580 3585

Gly Leu Pro Ala Ile Phe Glu Tyr Thr Val Val Gly Glu Pro Ala
3590 3595 3600

Pro Thr Val Thr Trp Phe Lys Glu Asn Lys Gln Leu Cys Thr Ser
3605 3610 3615

Val Tyr Tyr Thr Ile Ile His Asn Pro Asn Gly Ser Gly Thr Phe
3620 3625 3630

Ile Val Asn Asp Pro Gln Arg Glu Asp Ser Gly Leu Tyr Ile Cys
3635 3640 3645

Lys Ala Glu Asn Met Leu Gly Glu Ser Thr Cys Ala Ala Glu Leu
3650 3655 3660

Leu Val Leu Leu Glu Asp Thr Asp Met Thr Asp Thr Pro Cys Lys
3665 3670 3675

Ala Lys Ser Thr Pro Glu Ala Pro Glu Asp Phe Pro Gln Thr Pro
3680 3685 3690

Leu Lys Gly Pro Ala Val Glu Ala Leu Asp Ser Glu Gln Glu Ile
3695 3700 3705

Ala Thr Phe Val Lys Asp Thr Ile Leu Lys Ala Ala Leu Ile Thr
3710 3715 3720

Glu Glu Asn Gln Gln Leu Ser Tyr Glu His Ile Ala Lys Ala Asn
3725 3730 3735

Glu Leu Ser Ser Gln Leu Pro Leu Gly Ala Gln Glu Leu Gln Ser
3740 3745 3750

Ile Leu Glu Gln Asp Lys Leu Thr Pro Glu Ser Thr Arg Glu Phe
3755 3760 3765

Leu Cys Ile Asn Gly Ser Ile His Phe Gln Pro Leu Lys Glu Pro
3770 3775 3780

Ser Pro Asn Leu Gln Leu Gln Ile Val Gln Ser Gln Lys Thr Phe
3785 3790 3795

Ser Lys Glu Gly Ile Leu Met Pro Glu Glu Pro Glu Thr Gln Ala
3800 3805 3810

Val Leu Ser Asp Thr Glu Lys Ile Phe Pro Ser Ala Met Ser Ile
3815 3820 3825

Glu Gln Ile Asn Ser Leu Thr Val Glu Pro Leu Lys Thr Leu Leu
3830 3835 3840

Ala Glu Pro Glu Gly Asn Tyr Pro Gln Ser Ser Ile Glu Pro Pro
3845 3850 3855

Met His Ser Tyr Leu Thr Ser Val Ala Glu Glu Val Leu Ser Leu
3860 3865 3870

Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln Arg Val Thr
3875 3880 3885

Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu Ser Gln Ser
3890 3895 3900

Leu Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro Asp Val Met
3905 3910 3915

Ile Ser Gln Val Asn Tyr Glu Pro Leu Val Pro Ser Glu His Ser
3920 3925 3930

Cys Thr Glu Gly Gly Lys Ile Leu Ile Glu Ser Ala Asn Pro Leu
3935 3940 3945

Glu Asn Ala Gly Gln Asp Ser Ala Val Arg Ile Glu Glu Gly Lys
3950 3955 3960

Ser Leu Arg Phe Pro Leu Ala Leu Glu Glu Lys Gln Val Leu Leu
3965 3970 3975

Lys Glu Glu His Ser Asp Asn Val Val Met Pro Pro Asp Gln Ile
3980 3985 3990

Ile Glu Ser Lys Arg Glu Pro Val Ala Ile Lys Lys Val Gln Glu
3995 4000 4005

Val Gln Gly Arg Asp Leu Leu Ser Lys Glu Ser Leu Leu Ser Gly
4010 4015 4020

Ile Pro Glu Glu Gln Arg Leu Asn Leu Lys Ile Gln Ile Cys Arg
4025 4030 4035

Ala Leu Gln Ala Ala Val Ala Ser Glu Gln Pro Gly Leu Phe Ser
4040 4045 4050

Glu Trp Leu Arg Asn Ile Glu Lys Val Glu Val Glu Ala Val Asn
4055 4060 4065

Ile Thr Gln Glu Pro Arg His Ile Met Cys Met Tyr Leu Val Thr
4070 4075 4080

Ser Ala Lys Ser Val Thr Glu Glu Val Thr Ile Ile Ile Glu Asp
4085 4090 4095

Val Asp Pro Gln Met Ala Asn Leu Lys Met Glu Leu Arg Asp Ala
4100 4105 4110

Leu Cys Ala Ile Ile Tyr Glu Glu Ile Asp Ile Leu Thr Ala Glu
4115 4120 4125

Gly Pro Arg Ile Gln Gln Gly Ala Lys Thr Ser Leu Gln Glu Glu
4130 4135 4140

Met Asp Ser Phe Ser Gly Ser Gln Lys Val Glu Pro Ile Thr Glu

4145

4150

4155

Pro Glu Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser
4160 4165 4170

Tyr Phe Asn Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro
4175 4180 4185

Val Thr Lys Gly Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln
4190 4195 4200

Asp Glu Ser Leu Lys Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser
4205 4210 4215

Glu Ser Gly Thr Glu Glu Val Ala Thr Val Lys Ile Gln Glu Ala
4220 4225 4230

Glu Gly Gly Leu Ile Lys Glu Asp Gly Pro Met Ile His Thr Pro
4235 4240 4245

Leu Val Asp Thr Val Ser Glu Glu Gly Asp Ile Val His Leu Thr
4250 4255 4260

Thr Ser Ile Thr Asn Ala Lys Glu Val Asn Trp Tyr Phe Glu Asn
4265 4270 4275

Lys Leu Val Pro Ser Asp Glu Lys Phe Lys Cys Leu Gln Asp Gln
4280 4285 4290

Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn Thr Glu Asp His
4295 4300 4305

Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser Gly Lys Thr
4310 4315 4320

Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala Pro Val
4325 4330 4335

Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His Leu
4340 4345 4350

Ala Lys Phe Thr Cys Glu Ile Gln Ser Ala Pro Asn Val Arg Phe
4355 4360 4365

Gln Trp Phe Lys Ala Gly Arg Glu Ile Tyr Glu Ser Asp Lys Cys
4370 4375 4380

Ser Ile Arg Ser Ser Lys Tyr Ile Ser Ser Leu Glu Ile Leu Arg
4385 4390 4395

Thr Gln Val Val Asp Cys Gly Glu Tyr Thr Cys Lys Ala Ser Asn
4400 4405 4410

Glu Tyr Gly Ser Val Ser Cys Thr Ala Thr Leu Thr Val Thr Val
4415 4420 4425

Pro Gly Gly Glu Lys Lys Val Arg Lys Leu Leu Pro Glu Arg Lys
4430 4435 4440

Pro Glu Pro Lys Glu Glu Val Val Leu Lys Ser Val Leu Arg Lys
4445 4450 4455

Arg Pro Glu Glu Glu Glu Pro Lys Val Glu Pro Lys Lys Leu Glu
4460 4465 4470

Lys Val Lys Lys Pro Ala Val Pro Glu Pro Pro Pro Pro Lys Pro
4475 4480 4485

Val Glu Glu Val Glu Val Pro Thr Val Thr Lys Arg Glu Arg Lys
4490 4495 4500

Ile Pro Glu Pro Thr Lys Val Pro Glu Ile Lys Pro Ala Ile Pro
4505 4510 4515

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Leu Pro Ala Pro Glu Pro Lys Pro Lys Pro Glu Ala Glu Val Lys
4520 4525 4530

Thr Ile Lys Pro Pro Pro Val Glu Pro Glu Pro Thr Pro Ile Ala
4535 4540 4545

Ala Pro Val Thr Val Pro Val Val Gly Lys Lys Ala Glu Ala Lys
4550 4555 4560

Ala Pro Lys Glu Glu Ala Ala Lys Pro Lys Gly Pro Ile Lys Gly
4565 4570 4575

Val Pro Lys Lys Thr Pro Ser Pro Ile Glu Ala Glu Arg Arg Lys
4580 4585 4590

Leu Arg Pro Gly Ser Gly Gly Glu Lys Pro Pro Asp Glu Ala Pro
4595 4600 4605

Phe Thr Tyr Gln Leu Lys Ala Val Pro Leu Lys Phe Val Lys Glu
4610 4615 4620

Ile Lys Asp Ile Ile Leu Thr Glu Ser Glu Phe Val Gly Ser Ser
4625 4630 4635

Ala Ile Phe Glu Cys Leu Val Ser Pro Ser Thr Ala Ile Thr Thr
4640 4645 4650

Trp Met Lys Asp Gly Ser Asn Ile Arg Glu Ser Pro Lys His Arg
4655 4660 4665

Phe Ile Ala Asp Gly Lys Asp Arg Lys Leu His Ile Ile Asp Val
4670 4675 4680

Gln Leu Ser Asp Ala Gly Glu Tyr Thr Cys Val Leu Arg Leu Gly
4685 4690 4695

Asn Lys Glu Lys Thr Ser Thr Ala Lys Leu Val Val Glu Glu Leu
4700 4705 4710

Pro Val Arg Phe Val Lys Thr Leu Glu Glu Glu Val Thr Val Val
4715 4720 4725

Lys Gly Gln Pro Leu Tyr Leu Ser Cys Glu Leu Asn Lys Glu Arg
4730 4735 4740

Asp Val Val Trp Arg Lys Asp Gly Lys Ile Val Val Glu Lys Pro
4745 4750 4755

Gly Arg Ile Val Pro Gly Val Ile Gly Leu Met Arg Ala Leu Thr
4760 4765 4770

Ile Asn Asp Ala Asp Asp Thr Asp Ala Gly Thr Tyr Thr Val Thr
4775 4780 4785

Val Glu Asn Ala Asn Asn Leu Glu Cys Ser Ser Cys Val Lys Val
4790 4795 4800

Val Glu Val Ile Arg Asp Trp Leu Val Lys Pro Ile Arg Asp Gln

4805 4810 4815

His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys Asp Ile Ala
4820 4825 4830

Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr Asp Glu Ile
4835 4840 4845

Pro Ala Glu Pro Asn Asp Lys Thr Glu Ile Leu Arg Asp Gly Asn
4850 4855 4860

His Leu Tyr Leu Lys Ile Lys Asn Ala Met Pro Glu Asp Ile Ala
4865 4870 4875

Glu Tyr Ala Val Glu Ile Glu Gly Lys Arg Tyr Pro Ala Lys Leu
4880 4885 4890

Thr Leu Gly Glu Arg Glu Val Glu Leu Leu Lys Pro Ile Glu Asp
4895 4900 4905

Val Thr Ile Tyr Glu Lys Glu Ser Ala Ser Phe Asp Ala Glu Ile
4910 4915 4920

Ser Glu Ala Asp Ile Pro Gly Gln Trp Lys Leu Lys Gly Glu Leu
4925 4930 4935

Leu Arg Pro Ser Pro Thr Cys Glu Ile Lys Ala Glu Gly Gly Lys
4940 4945 4950

Arg Phe Leu Thr Leu His Lys Val Lys Leu Asp Gln Ala Gly Glu
4955 4960 4965

Val Leu Tyr Gln Ala Leu Asn Ala Ile Thr Thr Ala Ile Leu Thr
4970 4975 4980

Val Lys Glu Ile Glu Leu Asp Phe Ala Val Pro Leu Lys Asp Val
4985 4990 4995

Thr Val Pro Glu Arg Arg Gln Ala Arg Phe Glu Cys Val Leu Thr
5000 5005 5010

Arg Glu Ala Asn Val Ile Trp Ser Lys Gly Pro Asp Ile Ile Lys
5015 5020 5025

Ser Ser Asp Lys Phe Asp Ile Ile Ala Asp Gly Lys Lys His Ile
5030 5035 5040

Leu Val Ile Asn Asp Ser Gln Phe Asp Asp Glu Gly Val Tyr Thr
5045 5050 5055

Ala Glu Val Glu Gly Lys Lys Thr Ser Ala Arg Leu Phe Val Thr
5060 5065 5070

Gly Ile Arg Leu Lys Phe Met Ser Pro Leu Glu Asp Gln Thr Val
5075 5080 5085

Lys Glu Gly Glu Thr Ala Thr Phe Val Cys Glu Leu Ser His Glu
5090 5095 5100

Lys Met His Val Val Trp Phe Lys Asn Asp Ala Lys Leu His Thr
5105 5110 5115

Ser Arg Thr Val Leu Ile Ser Ser Glu Gly Lys Thr His Lys Leu
5120 5125 5130

Glu Met Lys Glu Val Thr Leu Asp Asp Ile Ser Gln Ile Lys Ala
5135 5140 5145

Gln Val Lys Glu Leu Ser Ser Thr Ala Gln Leu Lys Val Leu Glu
5150 5155 5160

Ala Asp Pro Tyr Phe Thr Val Lys Leu His Asp Lys Thr Ala Val
5165 5170 5175

Glu Lys Asp Glu Ile Thr Leu Lys Cys Glu Val Ser Lys Asp Val
5180 5185 5190

Pro Val Lys Trp Phe Lys Asp Gly Glu Glu Ile Val Pro Ser Pro
5195 5200 5205

Lys Tyr Ser Ile Lys Ala Asp Gly Leu Arg Arg Ile Leu Lys Ile
5210 5215 5220

Lys Lys Ala Asp Leu Lys Asp Lys Gly Glu Tyr Val Cys Asp Cys
5225 5230 5235

Gly Thr Asp Lys Thr Lys Ala Asn Val Thr Val Glu Ala Arg Leu
5240 5245 5250

Ile Glu Val Glu Lys Pro Leu Tyr Gly Val Glu Val Phe Val Gly
5255 5260 5265

Glu Thr Ala His Phe Glu Ile Glu Leu Ser Glu Pro Asp Val His
5270 5275 5280

Gly Gln Trp Lys Leu Lys Gly Gln Pro Leu Thr Ala Ser Pro Asp
5285 5290 5295

Cys Glu Ile Ile Glu Asp Gly Lys Lys His Ile Leu Ile Leu His
5300 5305 5310

Asn Cys Gln Leu Gly Met Thr Gly Glu Val Ser Phe Gln Ala Ala
5315 5320 5325

Asn Ala Lys Ser Ala Ala Asn Leu Lys Val Lys Glu Leu Pro Leu
5330 5335 5340

Ile Phe Ile Thr Pro Leu Ser Asp Val Lys Val Phe Glu Lys Asp
5345 5350 5355

Glu Ala Lys Phe Glu Cys Glu Val Ser Arg Glu Pro Lys Thr Phe
5360 5365 5370

Arg Trp Leu Lys Gly Thr Gln Glu Ile Thr Gly Asp Asp Arg Phe
5375 5380 5385

Glu Leu Ile Lys Asp Gly Thr Lys His Ser Met Val Ile Lys Ser
5390 5395 5400

Ala Ala Phe Glu Asp Glu Ala Lys Tyr Met Phe Glu Ala Glu Asp
5405 5410 5415

Lys His Thr Ser Gly Lys Leu Ile Ile Glu Gly Ile Arg Leu Lys
5420 5425 5430

Phe Leu Thr Pro Leu Lys Asp Val Thr Ala Lys Glu Lys Glu Ser
5435 5440 5445

Ala Val Phe Thr Val Glu Leu Ser His Asp Asn Ile Arg Val Lys
5450 5455 5460

Trp Phe Lys Asn Asp Gln Arg Leu His Thr Thr Arg Ser Val Ser

5465

5470

5475

Met Gln Asp Glu Gly Lys Thr His Ser Ile Thr Phe Lys Asp Leu
5480 5485 5490

Ser Ile Asp Asp Thr Ser Gln Ile Arg Val Glu Ala Met Gly Met
5495 5500 5505

Ser Ser Glu Ala Lys Leu Thr Val Leu Glu Gly Asp Pro Tyr Phe
5510 5515 5520

Thr Gly Lys Leu Gln Asp Tyr Thr Gly Val Glu Lys Asp Glu Val
5525 5530 5535

Ile Leu Gln Cys Glu Ile Ser Lys Ala Asp Ala Pro Val Lys Trp
5540 5545 5550

Phe Lys Asp Gly Lys Glu Ile Lys Pro Ser Lys Asn Ala Val Ile
5555 5560 5565

Lys Thr Asp Gly Lys Lys Arg Met Leu Ile Leu Lys Lys Ala Leu
5570 5575 5580

Lys Ser Asp Ile Gly Gln Tyr Thr Cys Asp Cys Gly Thr Asp Lys
5585 5590 5595

Thr Ser Gly Lys Leu Asp Ile Glu Asp Arg Glu Ile Lys Leu Val
5600 5605 5610

Arg Pro Leu His Ser Val Glu Val Met Glu Thr Glu Thr Ala Arg
5615 5620 5625

Phe Glu Thr Glu Ile Ser Glu Asp Asp Ile His Ala Asn Trp Lys
5630 5635 5640

Leu Lys Gly Glu Ala Leu Leu Gln Thr Pro Asp Cys Glu Ile Lys
5645 5650 5655

Glu Glu Gly Lys Ile His Ser Leu Val Leu His Asn Cys Arg Leu
5660 5665 5670

Asp Gln Thr Gly Gly Val Asp Phe Gln Ala Ala Asn Val Lys Ser
5675 5680 5685

Ser Ala His Leu Arg Val Lys Pro Arg Val Ile Gly Leu Leu Arg
5690 5695 5700

Pro Leu Lys Asp Val Thr Val Thr Ala Gly Glu Thr Ala Thr Phe
5705 5710 5715

Asp Cys Glu Leu Ser Tyr Glu Asp Ile Pro Val Glu Trp Tyr Leu
5720 5725 5730

Lys Gly Lys Lys Leu Glu Pro Ser Asp Lys Val Val Pro Arg Ser
5735 5740 5745

Glu Gly Lys Val His Thr Leu Thr Leu Arg Asp Val Lys Leu Glu
5750 5755 5760

Asp Ala Gly Glu Val Gln Leu Thr Ala Lys Asp Phe Lys Thr His
5765 5770 5775

Ala Asn Leu Phe Val Lys Glu Pro Pro Val Glu Phe Thr Lys Pro
5780 5785 5790

Leu Glu Asp Gln Thr Val Glu Glu Gly Ala Thr Ala Val Leu Glu
5795 5800 5805

Cys Glu Val Ser Arg Glu Asn Ala Lys Val Lys Trp Phe Lys Asn
5810 5815 5820

Gly Thr Glu Ile Leu Lys Ser Lys Lys Tyr Glu Ile Val Ala Asp
5825 5830 5835

Gly Arg Val Arg Lys Leu Val Ile His Asp Cys Thr Pro Glu Asp
5840 5845 5850

Ile Lys Thr Tyr Thr Cys Asp Ala Lys Asp Phe Lys Thr Ser Cys
5855 5860 5865

Asn Leu Asn Val Val Pro Pro His Val Glu Phe Leu Arg Pro Leu
5870 5875 5880

Thr Asp Leu Gln Val Arg Glu Lys Glu Met Ala Arg Phe Glu Cys
5885 5890 5895

Glu Leu Ser Arg Glu Asn Ala Lys Val Lys Trp Phe Lys Asp Gly
5900 5905 5910

Ala Glu Ile Lys Lys Gly Lys Lys Tyr Asp Ile Ile Ser Lys Gly
5915 5920 5925

Ala Val Arg Ile Leu Val Ile Asn Lys Cys Leu Leu Asp Asp Glu
5930 5935 5940

Ala Glu Tyr Ser Cys Glu Val Arg Thr Ala Arg Thr Ser Gly Met
5945 5950 5955

Leu Thr Val Leu Glu Glu Ala Val Phe Thr Lys Asn Leu Ala
5960 5965 5970

Asn Ile Glu Val Ser Glu Thr Asp Thr Ile Lys Leu Val Cys Glu
5975 5980 5985

Val Ser Lys Pro Gly Ala Glu Val Ile Trp Tyr Lys Gly Asp Glu
5990 5995 6000

Glu Ile Ile Glu Thr Gly Arg Tyr Glu Ile Leu Thr Glu Gly Arg
6005 6010 6015

Lys Arg Ile Leu Val Ile Gln Asn Ala His Leu Glu Asp Ala Gly
6020 6025 6030

Asn Tyr Asn Cys Arg Leu Pro Ser Ser Arg Thr Asp Gly Lys Val
6035 6040 6045

Lys Val His Glu Leu Ala Ala Glu Phe Ile Ser Lys Pro Gln Asn
6050 6055 6060

Leu Glu Ile Leu Glu Gly Glu Lys Ala Glu Phe Val Cys Ser Ile
6065 6070 6075

Ser Lys Glu Ser Phe Pro Val Gln Trp Lys Arg Asp Asp Lys Thr
6080 6085 6090

Leu Glu Ser Gly Asp Lys Tyr Asp Val Ile Ala Asp Gly Lys Lys
6095 6100 6105

Arg Val Leu Val Val Lys Asp Ala Thr Leu Gln Asp Met Gly Thr
6110 6115 6120

Tyr Val Val Met Val Gly Ala Ala Arg Ala Ala Ala His Leu Thr

6125

6130

6135

Val Ile Glu Lys Leu Arg Ile Val Val Pro Leu Lys Asp Thr Arg
6140 6145 6150

Val Lys Glu Gln Gln Glu Val Val Phe Asn Cys Glu Val Asn Thr
6155 6160 6165

Glu Gly Ala Lys Ala Lys Trp Phe Arg Asn Glu Glu Ala Ile Phe
6170 6175 6180

Asp Ser Ser Lys Tyr Ile Ile Leu Gln Lys Asp Leu Val Tyr Thr
6185 6190 6195

Leu Arg Ile Arg Asp Ala His Leu Asp Asp Gln Ala Asn Tyr Asn
6200 6205 6210

Val Ser Leu Thr Asn His Arg Gly Glu Asn Val Lys Ser Ala Ala
6215 6220 6225

Asn Leu Ile Val Glu Glu Asp Leu Arg Ile Val Glu Pro Leu
6230 6235 6240

Lys Asp Ile Glu Thr Met Glu Lys Lys Ser Val Thr Phe Trp Cys
6245 6250 6255

Lys Val Asn Arg Leu Asn Val Thr Leu Lys Trp Thr Lys Asn Gly
6260 6265 6270

Glu Glu Val Pro Phe Asp Asn Arg Val Ser Tyr Arg Val Asp Lys
6275 6280 6285

Tyr Lys His Met Leu Thr Ile Lys Asp Cys Gly Phe Pro Asp Glu
6290 6295 6300

Gly Glu Tyr Ile Val Thr Ala Gly Gln Asp Lys Ser Val Ala Glu
6305 6310 6315

Leu Leu Ile Ile Glu Ala Pro Thr Glu Phe Val Glu His Leu Glu
6320 6325 6330

Asp Gln Thr Val Thr Glu Phe Asp Asp Ala Val Phe Ser Cys Gln
6335 6340 6345

Leu Ser Arg Glu Lys Ala Asn Val Lys Trp Tyr Arg Asn Gly Arg
6350 6355 6360

Glu Ile Lys Glu Gly Lys Lys Tyr Lys Phe Glu Lys Asp Gly Ser
6365 6370 6375

Ile His Arg Leu Ile Ile Lys Asp Cys Arg Leu Asp Asp Glu Cys
6380 6385 6390

Glu Tyr Ala Cys Gly Val Glu Asp Arg Lys Ser Arg Ala Arg Leu
6395 6400 6405

Phe Val Glu Glu Ile Pro Val Glu Ile Ile Arg Pro Pro Gln Asp
6410 6415 6420

Ile Leu Glu Ala Pro Gly Ala Asp Val Val Phe Leu Ala Glu Leu
6425 6430 6435

Asn Lys Asp Lys Val Glu Val Gln Trp Leu Arg Asn Asn Met Val
6440 6445 6450

Val Val Gln Gly Asp Lys His Gln Met Met Ser Glu Gly Lys Ile
6455 6460 6465

His Arg Leu Gln Ile Cys Asp Ile Lys Pro Arg Asp Gln Gly Glu
6470 6475 6480

Tyr Arg Phe Ile Ala Lys Asp Lys Glu Ala Arg Ala Lys Leu Glu
6485 6490 6495

Leu Ala Ala Ala Pro Lys Ile Lys Thr Ala Asp Gln Asp Leu Val
6500 6505 6510

Val Asp Val Gly Lys Pro Leu Thr Met Val Val Pro Tyr Asp Ala
6515 6520 6525

Tyr Pro Lys Ala Glu Ala Glu Trp Phe Lys Glu Asn Glu Pro Leu
6530 6535 6540

Ser Thr Lys Thr Ile Asp Thr Thr Ala Glu Gln Thr Ser Phe Arg
6545 6550 6555

Ile Leu Glu Ala Lys Lys Gly Asp Lys Gly Arg Tyr Lys Ile Val
6560 6565 6570

Leu Gln Asn Lys His Gly Lys Ala Glu Gly Phe Ile Asn Leu Lys
6575 6580 6585

Val Ile Asp Val Pro Gly Pro Val Arg Asn Leu Glu Val Thr Glu
6590 6595 6600

Thr Phe Asp Gly Glu Val Ser Leu Ala Trp Glu Glu Pro Leu Thr
6605 6610 6615

Asp Gly Gly Ser Lys Ile Ile Gly Tyr Val Val Glu Arg Arg Asp
6620 6625 6630

Ile Lys Arg Lys Thr Trp Val Leu Ala Thr Asp Arg Ala Glu Ser
6635 6640 6645

Cys Glu Phe Thr Val Thr Gly Leu Gln Lys Gly Gly Val Glu Tyr
6650 6655 6660

Leu Phe Arg Val Ser Ala Arg Asn Arg Val Gly Thr Gly Glu Pro
6665 6670 6675

Val Glu Thr Asp Asn Pro Val Glu Ala Arg Ser Lys Tyr Asp Val
6680 6685 6690

Pro Gly Pro Pro Leu Asn Val Thr Ile Thr Asp Val Asn Arg Phe
6695 6700 6705

Gly Val Ser Leu Thr Trp Glu Pro Pro Glu Tyr Asp Gly Gly Ala
6710 6715 6720

Glu Ile Thr Asn Tyr Val Ile Glu Leu Arg Asp Lys Thr Ser Ile
6725 6730 6735

Arg Trp Asp Thr Ala Met Thr Val Arg Ala Glu Asp Leu Ser Ala
6740 6745 6750

Thr Val Thr Asp Val Val Glu Gly Gln Glu Tyr Ser Phe Arg Val
6755 6760 6765

Arg Ala Gln Asn Arg Ile Gly Val Gly Lys Pro Ser Ala Ala Thr
6770 6775 6780

Pro Phe Val Lys Val Ala Asp Pro Ile Glu Arg Pro Ser Pro Pro

6785

6790

6795

Val Asn Leu Thr Ser Ser Asp Gln Thr Gln Ser Ser Val Gln Leu
6800 6805 6810

Lys Trp Glu Pro Pro Leu Lys Asp Gly Gly Ser Pro Ile Leu Gly
6815 6820 6825

Tyr Ile Ile Glu Arg Cys Glu Glu Gly Lys Asp Asn Trp Ile Arg
6830 6835 6840

Cys Asn Met Lys Leu Val Pro Glu Leu Thr Tyr Lys Val Thr Gly
6845 6850 6855

Leu Glu Lys Gly Asn Lys Tyr Leu Tyr Arg Val Ser Ala Glu Asn
6860 6865 6870

Lys Ala Gly Val Ser Asp Pro Ser Glu Ile Leu Gly Pro Leu Thr
6875 6880 6885

Ala Asp Asp Ala Phe Val Glu Pro Thr Met Asp Leu Ser Ala Phe
6890 6895 6900

Lys Asp Gly Leu Glu Val Ile Val Pro Asn Pro Ile Thr Ile Leu
6905 6910 6915

Val Pro Ser Thr Gly Tyr Pro Arg Pro Thr Ala Thr Trp Cys Phe
6920 6925 6930

Gly Asp Lys Val Leu Glu Thr Gly Asp Arg Val Lys Met Lys Thr
6935 6940 6945

Leu Ser Ala Tyr Ala Glu Leu Val Ile Ser Pro Ser Glu Arg Ser
6950 6955 6960

Asp Lys Gly Ile Tyr Thr Leu Lys Leu Glu Asn Arg Val Lys Thr
6965 6970 6975

Ile Ser Gly Glu Ile Asp Val Asn Val Ile Ala Arg Pro Ser Ala
6980 6985 6990

Pro Lys Glu Leu Lys Phe Gly Asp Ile Thr Lys Asp Ser Val His
6995 7000 7005

Leu Thr Trp Glu Pro Pro Asp Asp Asp Gly Gly Ser Pro Leu Thr
7010 7015 7020

Gly Tyr Val Val Glu Lys Arg Glu Val Ser Arg Lys Thr Trp Thr
7025 7030 7035

Lys Val Met Asp Phe Val Thr Asp Leu Glu Phe Thr Val Pro Asp
7040 7045 7050

Leu Val Gln Gly Lys Glu Tyr Leu Phe Lys Val Cys Ala Arg Asn
7055 7060 7065

Lys Cys Gly Pro Gly Glu Pro Ala Tyr Val Asp Glu Pro Val Asn
7070 7075 7080

Met Ser Thr Pro Ala Thr Val Pro Asp Pro Pro Glu Asn Val Lys
7085 7090 7095

Trp Arg Asp Arg Thr Ala Asn Ser Ile Phe Leu Thr Trp Asp Pro
7100 7105 7110

Pro Lys Asn Asp Gly Gly Ser Arg Ile Lys Gly Tyr Ile Val Glu
7115 7120 7125

Arg Cys Pro Arg Gly Ser Asp Lys Trp Val Ala Cys Gly Glu Pro
7130 7135 7140

Val Ala Glu Thr Lys Met Glu Val Thr Gly Leu Glu Glu Gly Lys
7145 7150 7155

Trp Tyr Ala Tyr Arg Val Lys Thr Leu Asn Arg Gln Gly Ala Ser
7160 7165 7170

Lys Pro Ser Arg Pro Thr Glu Glu Ile Gln Ala Val Asp Thr Gln
7175 7180 7185

Glu Ala Pro Glu Ile Phe Leu Asp Val Lys Leu Leu Ala Gly Leu
7190 7195 7200

Thr Val Lys Ala Gly Thr Lys Ile Glu Leu Pro Ala Thr Val Thr
7205 7210 7215

Gly Lys Pro Glu Pro Lys Ile Thr Trp Thr Lys Ala Asp Met Ile
7220 7225 7230

Leu Lys Gln Asp Lys Arg Ile Thr Ile Glu Asn Val Pro Lys Lys
7235 7240 7245

Ser Thr Val Thr Ile Val Asp Ser Lys Arg Ser Asp Thr Gly Thr
7250 7255 7260

Tyr Ile Ile Glu Ala Val Asn Val Cys Gly Arg Ala Thr Ala Val
7265 7270 7275

Val Glu Val Asn Val Leu Asp Lys Pro Gly Pro Pro Ala Ala Phe
7280 7285 7290

Asp Ile Thr Asp Val Thr Asn Glu Ser Cys Leu Leu Thr Trp Asn
7295 7300 7305

Pro Pro Arg Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Val
7310 7315 7320

Glu Arg Arg Ala Thr Asp Ser Glu Val Trp His Lys Leu Ser Ser
7325 7330 7335

Thr Val Lys Asp Thr Asn Phe Lys Ala Thr Lys Leu Ile Pro Asn
7340 7345 7350

Lys Glu Tyr Ile Phe Arg Val Ala Ala Glu Asn Met Tyr Gly Ala
7355 7360 7365

Gly Glu Pro Val Gln Ala Ser Pro Ile Thr Ala Lys Tyr Gln Phe
7370 7375 7380

Asp Pro Pro Gly Pro Pro Thr Arg Leu Glu Pro Ser Asp Ile Thr
7385 7390 7395

Lys Asp Ala Val Thr Leu Thr Trp Cys Glu Pro Asp Asp Asp Gly
7400 7405 7410

Gly Ser Pro Ile Thr Gly Tyr Trp Val Glu Arg Leu Asp Pro Asp
7415 7420 7425

Thr Asp Lys Trp Val Arg Cys Asn Lys Met Pro Val Lys Asp Thr
7430 7435 7440

Thr Tyr Arg Val Lys Gly Leu Thr Asn Lys Lys Lys Tyr Arg Phe

7445

7450

7455

Arg Val Leu Ala Glu Asn Leu Ala Gly Pro Gly Lys Pro Ser Lys
7460 7465 7470

Ser Thr Glu Pro Ile Leu Ile Lys Asp Pro Ile Asp Pro Pro Trp
7475 7480 7485

Pro Pro Gly Lys Pro Thr Val Lys Asp Val Gly Lys Thr Ser Val
7490 7495 7500

Arg Leu Asn Trp Thr Lys Pro Glu His Asp Gly Gly Ala Lys Ile
7505 7510 7515

Glu Ser Tyr Val Ile Glu Met Leu Lys Thr Gly Thr Asp Glu Trp
7520 7525 7530

Val Arg Val Ala Glu Gly Val Pro Thr Thr Gln His Leu Leu Pro
7535 7540 7545

Gly Leu Met Glu Gly Gln Glu Tyr Ser Phe Arg Val Arg Ala Val
7550 7555 7560

Asn Lys Ala Gly Glu Ser Glu Pro Ser Glu Pro Ser Asp Pro Val
7565 7570 7575

Leu Cys Arg Glu Lys Leu Tyr Pro Pro Ser Pro Pro Arg Trp Leu
7580 7585 7590

Glu Val Ile Asn Ile Thr Lys Asn Thr Ala Asp Leu Lys Trp Thr
7595 7600 7605

Val Pro Glu Lys Asp Gly Gly Ser Pro Ile Thr Asn Tyr Ile Val
7610 7615 7620

Glu Lys Arg Asp Val Arg Arg Lys Gly Trp Gln Thr Val Asp Thr
7625 7630 7635

Thr Val Lys Asp Thr Lys Cys Thr Val Thr Pro Leu Thr Glu Gly
7640 7645 7650

Ser Leu Tyr Val Phe Arg Val Ala Ala Glu Asn Ala Ile Gly Gln
7655 7660 7665

Ser Asp Tyr Thr Glu Ile Glu Asp Ser Val Leu Ala Lys Asp Thr
7670 7675 7680

Phe Thr Thr Pro Gly Pro Pro Tyr Ala Leu Ala Val Val Asp Val
7685 7690 7695

Thr Lys Arg His Val Asp Leu Lys Trp Glu Pro Pro Lys Asn Asp
7700 7705 7710

Gly Gly Arg Pro Ile Gln Arg Tyr Val Ile Glu Lys Lys Glu Arg
7715 7720 7725

Leu Gly Thr Arg Trp Val Lys Ala Gly Lys Thr Ala Gly Pro Asp
7730 7735 7740

Cys Asn Phe Arg Val Thr Asp Val Ile Glu Gly Thr Glu Val Gln
7745 7750 7755

Phe Gln Val Arg Ala Glu Asn Glu Ala Gly Val Gly His Pro Ser
7760 7765 7770

Glu Pro Thr Glu Ile Leu Ser Ile Glu Asp Pro Thr Ser Pro Pro
7775 7780 7785

Ser Pro Pro Leu Asp Leu His Val Thr Asp Ala Gly Arg Lys His
7790 7795 7800

Ile Ala Ile Ala Trp Lys Pro Pro Glu Lys Asn Gly Gly Ser Pro
7805 7810 7815

Ile Ile Gly Tyr His Val Glu Met Cys Pro Val Gly Thr Glu Lys
7820 7825 7830

Trp Met Arg Val Asn Ser Arg Pro Ile Lys Asp Leu Lys Phe Lys
7835 7840 7845

Val Glu Glu Gly Val Val Pro Asp Lys Glu Tyr Val Leu Arg Val
7850 7855 7860

Arg Ala Val Asn Ala Ile Gly Val Ser Glu Pro Ser Glu Ile Ser
7865 7870 7875

Glu Asn Val Val Ala Lys Asp Pro Asp Cys Lys Pro Thr Ile Asp
7880 7885 7890

Leu Glu Thr His Asp Ile Ile Val Ile Glu Gly Glu Lys Leu Ser
7895 7900 7905

Ile Pro Val Pro Phe Arg Ala Val Pro Val Pro Thr Val Ser Trp
7910 7915 7920

His Lys Asp Gly Lys Glu Val Lys Ala Ser Asp Arg Leu Thr Met
7925 7930 7935

Lys Asn Asp His Ile Ser Ala His Leu Glu Val Pro Lys Ser Val
7940 7945 7950

Arg Ala Asp Ala Gly Ile Tyr Thr Ile Thr Leu Glu Asn Lys Leu
7955 7960 7965

Gly Ser Ala Thr Ala Ser Ile Asn Val Lys Val Ile Gly Leu Pro
7970 7975 7980

Gly Pro Cys Lys Asp Ile Lys Ala Ser Asp Ile Thr Lys Ser Ser
7985 7990 7995

Cys Lys Leu Thr Trp Glu Pro Pro Glu Phe Asp Gly Gly Thr Pro
8000 8005 8010

Ile Leu His Tyr Val Leu Glu Arg Arg Glu Ala Gly Arg Arg Thr
8015 8020 8025

Tyr Ile Pro Val Met Ser Gly Glu Asn Lys Leu Ser Trp Thr Val
8030 8035 8040

Lys Asp Leu Ile Pro Asn Gly Glu Tyr Phe Phe Arg Val Lys Ala
8045 8050 8055

Val Asn Lys Val Gly Gly Glu Tyr Ile Glu Leu Lys Asn Pro
8060 8065 8070

Val Ile Ala Gln Asp Pro Lys Gln Pro Pro Asp Pro Pro Val Asp
8075 8080 8085

Val Glu Val His Asn Pro Thr Ala Glu Ala Met Thr Ile Thr Trp
8090 8095 8100

Lys Pro Pro Leu Tyr Asp Gly Gly Ser Lys Ile Met Gly Tyr Ile

8105 8110 8115
Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg Trp Lys Arg Cys Asn
8120 8125 8130

Glu His Leu Val Pro Ile Leu Thr Tyr Thr Ala Lys Gly Leu Glu
8135 8140 8145

Glu Gly Lys Glu Tyr Gln Phe Arg Val Arg Ala Glu Asn Ala Ala
8150 8155 8160

Gly Ile Ser Glu Pro Ser Arg Ala Thr Pro Pro Thr Lys Ala Val
8165 8170 8175

Asp Pro Ile Asp Ala Pro Lys Val Ile Leu Arg Thr Ser Leu Glu
8180 8185 8190

Val Lys Arg Gly Asp Glu Ile Ala Leu Asp Ala Ser Ile Ser Gly
8195 8200 8205

Ser Pro Tyr Pro Thr Ile Thr Trp Ile Lys Asp Glu Asn Val Ile
8210 8215 8220

Val Pro Glu Glu Ile Lys Lys Arg Ala Ala Pro Leu Val Arg Arg
8225 8230 8235

Arg Lys Gly Glu Val Gln Glu Glu Glu Pro Phe Val Leu Pro Leu
8240 8245 8250

Thr Gln Arg Leu Ser Ile Asp Asn Ser Lys Lys Gly Glu Ser Gln
8255 8260 8265

Leu Arg Val Arg Asp Ser Leu Arg Pro Asp His Gly Leu Tyr Met
8270 8275 8280

Ile Lys Val Glu Asn Asp His Gly Ile Ala Lys Ala Pro Cys Thr
8285 8290 8295

Val Ser Val Leu Asp Thr Pro Gly Pro Pro Ile Asn Phe Val Phe
8300 8305 8310

Glu Asp Ile Arg Lys Thr Ser Val Leu Cys Lys Trp Glu Pro Pro
8315 8320 8325

Leu Asp Asp Gly Gly Ser Glu Ile Ile Asn Tyr Thr Leu Glu Lys
8330 8335 8340

Lys Asp Lys Thr Lys Pro Asp Ser Glu Trp Ile Val Val Thr Ser
8345 8350 8355

Thr Leu Arg His Cys Lys Tyr Ser Val Thr Lys Leu Ile Glu Gly
8360 8365 8370

Lys Glu Tyr Leu Phe Arg Val Arg Ala Glu Asn Arg Phe Gly Pro
8375 8380 8385

Gly Pro Pro Cys Val Ser Lys Pro Leu Val Ala Lys Asp Pro Phe
8390 8395 8400

Gly Pro Pro Asp Ala Pro Asp Lys Pro Ile Val Glu Asp Val Thr
8405 8410 8415

Ser Asn Ser Met Leu Val Lys Trp Asn Glu Pro Lys Asp Asn Gly
8420 8425 8430

Ser Pro Ile Leu Gly Tyr Trp Leu Glu Lys Arg Glu Val Asn Ser
8435 8440 8445

Thr His Trp Ser Arg Val Asn Lys Ser Leu Leu Asn Ala Leu Lys
8450 8455 8460

Ala Asn Val Asp Gly Leu Leu Glu Gly Leu Thr Tyr Val Phe Arg
8465 8470 8475

Val Cys Ala Glu Asn Ala Ala Gly Pro Gly Lys Phe Ser Pro Pro
8480 8485 8490

Ser Asp Pro Lys Thr Ala His Asp Pro Ile Ser Pro Pro Gly Pro
8495 8500 8505

Pro Ile Pro Arg Val Thr Asp Thr Ser Ser Thr Thr Ile Glu Leu
8510 8515 8520

Glu Trp Glu Pro Pro Ala Phe Asn Gly Gly Glu Ile Val Gly
8525 8530 8535

Tyr Phe Val Asp Lys Gln Leu Val Gly Thr Asn Lys Trp Ser Arg
8540 8545 8550

Cys Thr Glu Lys Met Ile Lys Val Arg Gln Tyr Thr Val Lys Glu
8555 8560 8565

Ile Arg Glu Gly Ala Asp Tyr Lys Leu Arg Val Ser Ala Val Asn
8570 8575 8580

Ala Ala Gly Glu Gly Pro Pro Gly Glu Thr Gln Pro Val Thr Val
8585 8590 8595

Ala Glu Pro Gln Glu Pro Pro Ala Val Glu Leu Asp Val Ser Val
8600 8605 8610

Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr Leu Arg Ile Pro
8615 8620 8625

Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val Trp Thr Lys
8630 8635 8640

Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile Asp Asn Val
8645 8650 8655

Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu Arg Lys Asp
8660 8665 8670

His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys Gly Ser Lys
8675 8680 8685

Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro Gly Pro Val
8690 8695 8700

Leu Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met Cys Leu Leu
8705 8710 8715

Asn Trp Ser Asp Pro Glu Asp Asp Gly Gly Ser Glu Ile Thr Gly
8720 8725 8730

Phe Ile Ile Glu Arg Lys Asp Ala Lys Met His Thr Trp Arg Gln
8735 8740 8745

Pro Ile Glu Thr Glu Arg Ser Lys Cys Asp Ile Thr Gly Leu Leu
8750 8755 8760

Glu Gly Gln Glu Tyr Lys Phe Arg Val Ile Ala Lys Asn Lys Phe

8765 8770 8775

Gly Cys Gly Pro Pro Val Glu Ile Gly Pro Ile Leu Ala Val Asp
8780 8785 8790

Pro Leu Gly Pro Pro Thr Ser Pro Glu Arg Leu Thr Tyr Thr Glu
8795 8800 8805

Arg Gln Arg Ser Thr Ile Thr Leu Asp Trp Lys Glu Pro Arg Ser
8810 8815 8820

Asn Gly Gly Ser Pro Ile Gln Gly Tyr Ile Ile Glu Lys Arg Arg
8825 8830 8835

His Asp Lys Pro Asp Phe Glu Arg Val Asn Lys Arg Leu Cys Pro
8840 8845 8850

Thr Thr Ser Phe Leu Val Glu Asn Leu Asp Glu His Gln Met Tyr
8855 8860 8865

Glu Phe Arg Val Lys Ala Val Asn Glu Ile Gly Glu Ser Glu Pro
8870 8875 8880

Ser Leu Pro Leu Asn Val Val Ile Gln Asp Asp Glu Val Pro Pro
8885 8890 8895

Thr Ile Lys Leu Arg Leu Ser Val Arg Gly Asp Thr Ile Lys Val
8900 8905 8910

Lys Ala Gly Glu Pro Val His Ile Pro Ala Asp Val Thr Gly Leu
8915 8920 8925

Pro Met Pro Lys Ile Glu Trp Ser Lys Asn Glu Thr Val Ile Glu
8930 8935 8940

Lys Pro Thr Asp Ala Leu Gln Ile Thr Lys Glu Glu Val Ser Arg
8945 8950 8955

Ser Glu Ala Lys Thr Glu Leu Ser Ile Pro Lys Ala Val Arg Glu
8960 8965 8970

Asp Lys Gly Thr Tyr Thr Val Thr Ala Ser Asn Arg Leu Gly Ser
8975 8980 8985

Val Phe Arg Asn Val His Val Glu Val Tyr Asp Arg Pro Ser Pro
8990 8995 9000

Pro Arg Asn Leu Ala Val Thr Asp Ile Lys Ala Glu Ser Cys Tyr
9005 9010 9015

Leu Thr Trp Asp Ala Pro Leu Asp Asn Gly Gly Ser Glu Ile Thr
9020 9025 9030

His Tyr Val Ile Asp Lys Arg Asp Ala Ser Arg Lys Lys Ala Glu
9035 9040

Trp Glu Glu Val Thr Asn Thr Ala Val Glu Lys Arg Tyr Gly Ile
9050 9055 9060

Trp Lys Leu Ile Pro Asn Gly Gln Tyr Glu Phe Arg Val Arg Ala
9065 9070 9075

Val Asn Lys Tyr Gly Ile Ser Asp Glu Cys Lys Ser Asp Lys Val
9080 9085 9090

Val Ile Gln Asp Pro Tyr Arg Leu Pro Gly Pro Pro Gly Lys Pro
9095 9100 9105

Lys Val Leu Ala Arg Thr Lys Gly Ser Met Leu Val Ser Trp Thr
9110 9115 9120

Pro Pro Leu Asp Asn Gly Gly Ser Pro Ile Thr Gly Tyr Trp Leu
9125 9130 9135

Glu Lys Arg Glu Glu Gly Ser Pro Tyr Trp Ser Arg Val Ser Arg
9140 9145 9150

Ala Pro Ile Thr Lys Val Gly Leu Lys Gly Val Glu Phe Asn Val
9155 9160 9165

Pro Arg Leu Leu Glu Gly Val Lys Tyr Gln Phe Arg Ala Met Ala
9170 9175 9180

Ile Asn Ala Ala Gly Ile Gly Pro Pro Ser Glu Pro Ser Asp Pro
9185 9190 9195

Glu Val Ala Gly Asp Pro Ile Phe Pro Pro Gly Pro Pro Ser Cys
9200 9205 9210

Pro Glu Val Lys Asp Lys Thr Lys Ser Ser Ile Ser Leu Gly Trp
9215 9220 9225

Lys Pro Pro Ala Lys Asp Gly Gly Ser Pro Ile Lys Gly Tyr Ile
9230 9235 9240

Val Glu Met Gln Glu Glu Gly Thr Thr Asp Trp Lys Arg Val Asn
9245 9250 9255

Glu Pro Asp Lys Leu Ile Thr Thr Cys Glu Cys Val Val Pro Asn
9260 9265 9270

Leu Lys Glu Leu Arg Lys Tyr Arg Phe Arg Val Lys Ala Val Asn
9275 9280 9285

Glu Ala Gly Glu Ser Glu Pro Ser Asp Thr Thr Gly Glu Ile Pro
9290 9295 9300

Ala Thr Asp Ile Gln Glu Glu Pro Glu Val Phe Ile Asp Ile Gly
9305 9310 9315

Ala Gln Asp Cys Leu Val Cys Lys Ala Gly Ser Gln Ile Arg Ile
9320 9325 9330

Pro Ala Val Ile Lys Gly Arg Pro Thr Pro Lys Ser Ser Trp Glu
9335 9340 9345

Phe Asp Gly Lys Ala Lys Lys Ala Met Lys Asp Gly Val His Asp
9350 9355 9360

Ile Pro Glu Asp Ala Gln Leu Glu Thr Ala Glu Asn Ser Ser Val
9365 9370 9375

Ile Ile Ile Pro Glu Cys Lys Arg Ser His Thr Gly Lys Tyr Ser
9380 9385 9390

Ile Thr Ala Lys Asn Lys Ala Gly Gln Lys Thr Ala Asn Cys Arg
9395 9400 9405

Val Lys Val Met Asp Val Pro Gly Pro Pro Lys Asp Leu Lys Val
9410 9415 9420

Ser Asp Ile Thr Arg Gly Ser Cys Arg Leu Ser Trp Lys Met Pro

9425

9430

9435

Asp Asp Asp Gly Gly Asp Arg Ile Lys Gly Tyr Val Ile Glu Lys
9440 9445 9450

Arg Thr Ile Asp Gly Lys Ala Trp Thr Lys Val Asn Pro Asp Cys
9455 9460 9465

Gly Ser Thr Thr Phe Val Val Pro Asp Leu Leu Ser Glu Gln Gln
9470 9475 9480

Tyr Phe Phe Arg Val Arg Ala Glu Asn Arg Phe Gly Ile Gly Pro
9485 9490 9495

Pro Val Glu Thr Ile Gln Arg Thr Thr Ala Arg Asp Pro Ile Tyr
9500 9505 9510

Pro Pro Asp Pro Pro Ile Lys Leu Lys Ile Gly Leu Ile Thr Lys
9515 9520 9525

Asn Thr Val His Leu Ser Trp Lys Pro Pro Lys Asn Asp Gly Gly
9530 9535 9540

Ser Pro Val Thr His Tyr Ile Val Glu Cys Leu Ala Trp Asp Pro
9545 9550 9555

Thr Gly Thr Lys Lys Glu Ala Trp Arg Gln Cys Asn Lys Arg Asp
9560 9565 9570

Val Glu Glu Leu Gln Phe Thr Val Glu Asp Leu Val Glu Gly Gly
9575 9580 9585

Glu Tyr Glu Phe Arg Val Lys Ala Val Asn Ala Ala Gly Val Ser
9590 9595 9600

Lys Pro Ser Ala Thr Val Gly Pro Cys Asp Cys Gln Arg Pro Asp
9605 9610 9615

Met Pro Pro Ser Ile Asp Leu Lys Glu Phe Met Glu Val Glu Glu
9620 9625 9630

Gly Thr Asn Val Asn Ile Val Ala Lys Ile Lys Gly Val Pro Phe
9635 9640 9645

Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn
9650 9655 9660

Lys Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val
9665 9670 9675

Asp Asp Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp
9680 9685 9690

Thr Gly Leu Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala
9695 9700 9705

Ser Lys Glu Met Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro
9710 9715 9720

Val Gly Pro Ile Lys Phe Glu Ser Val Ser Ala Asp Gln Met Thr
9725 9730 9735

Leu Ser Trp Phe Pro Pro Lys Asp Asp Gly Gly Ser Lys Ile Thr
9740 9745 9750

Asn Tyr Val Ile Glu Lys Arg Glu Ala Asn Arg Lys Thr Trp Val
9755 9760 9765

His Val Ser Ser Glu Pro Lys Glu Cys Thr Tyr Thr Ile Pro Lys
9770 9775 9780

Leu Leu Glu Gly His Glu Tyr Val Phe Arg Ile Met Ala Gln Asn
9785 9790 9795

Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser Glu Pro Glu Thr Ala
9800 9805 9810

Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp Lys Pro Thr Val
9815 9820 9825

Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp Glu Glu Pro
9830 9835 9840

Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu Glu Met
9845 9850 9855

Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp Pro
9860 9865 9870

Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
9875 9880 9885

Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala
9890 9895 9900

Ala Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala
9905 9910 9915

Arg Asp Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr
9920 9925 9930

Asp Trp Thr Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu
9935 9940 9945

Lys Asp Gly Gly Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys
9950 9955 9960

Glu Glu Gly Lys Glu Glu Trp Glu Lys Gly Lys Asp Lys Glu Val
9965 9970 9975

Arg Gly Thr Lys Leu Val Val Thr Gly Leu Lys Glu Gly Ala Phe
9980 9985 9990

Tyr Lys Phe Arg Val Ser Ala Val Asn Ile Ala Gly Ile Gly Glu
9995 10000 10005

Pro Gly Glu Val Thr Asp Val Ile Glu Met Lys Asp Arg Leu Val
10010 10015 10020

Ser Pro Asp Leu Gln Leu Asp Ala Ser Val Arg Asp Arg Ile Val
10025 10030 10035

Val His Ala Gly Gly Val Ile Arg Ile Ile Ala Tyr Val Ser Gly
10040 10045 10050

Lys Pro Pro Pro Thr Val Thr Trp Asn Met Asn Glu Arg Thr Leu
10055 10060 10065

Pro Gln Glu Ala Thr Ile Glu Thr Thr Ala Ile Ser Ser Ser Met
10070 10075 10080

Val Ile Lys Asn Cys Gln Arg Ser His Gln Gly Val Tyr Ser Leu

10085

10090

10095

Leu Ala Lys Asn Glu Ala Gly Glu Arg Lys Lys Thr Ile Ile Val
10100 10105 10110

Asp Val Leu Asp Val Pro Gly Pro Val Gly Thr Pro Phe Leu Ala
10115 10120 10125

His Asn Leu Thr Asn Glu Ser Cys Lys Leu Thr Trp Phe Ser Pro
10130 10135 10140

Glu Asp Asp Gly Gly Ser Pro Ile Thr Asn Tyr Val Ile Glu Lys
10145 10150 10155

Arg Glu Ser Asp Arg Arg Ala Trp Thr Pro Val Thr Tyr Thr Val
10160 10165 10170

Thr Arg Gln Asn Ala Thr Val Gln Gly Leu Ile Gln Gly Lys Ala
10175 10180 10185

Tyr Phe Phe Arg Ile Ala Ala Glu Asn Ser Ile Gly Met Gly Pro
10190 10195 10200

Phe Val Glu Thr Ser Glu Ala Leu Val Ile Arg Glu Pro Ile Thr
10205 10210 10215

Val Pro Glu Arg Pro Glu Asp Leu Glu Val Lys Glu Val Thr Lys
10220 10225 10230

Asn Thr Val Thr Leu Thr Trp Asn Pro Pro Lys Tyr Asp Gly Gly
10235 10240 10245

Ser Glu Ile Ile Asn Tyr Val Leu Glu Ser Arg Leu Ile Gly Thr
10250 10255 10260

Glu Lys Phe His Lys Val Thr Asn Asp Asn Leu Leu Ser Arg Lys
10265 10270 10275

Tyr Thr Val Lys Gly Leu Lys Glu Gly Asp Thr Tyr Glu Tyr Arg
10280 10285 10290

Val Ser Ala Val Asn Ile Val Gly Gln Gly Lys Pro Ser Phe Cys
10295 10300 10305

Thr Lys Pro Ile Thr Cys Lys Asp Glu Leu Ala Pro Pro Thr Leu
10310 10315 10320

His Leu Asp Phe Arg Asp Lys Leu Thr Ile Arg Val Gly Glu Ala
10325 10330 10335

Phe Ala Leu Thr Gly Arg Tyr Ser Gly Lys Pro Lys Pro Lys Val
10340 10345 10350

Ser Trp Phe Lys Asp Glu Ala Asp Val Leu Glu Asp Asp Arg Thr
10355 10360 10365

His Ile Lys Thr Thr Pro Ala Thr Leu Ala Leu Glu Lys Ile Lys
10370 10375 10380

Ala Lys Arg Ser Asp Ser Gly Lys Tyr Cys Val Val Val Glu Asn
10385 10390 10395

Ser Thr Gly Ser Arg Lys Gly Phe Cys Gln Val Asn Val Val Asp
10400 10405 10410

His Pro Gly Pro Pro Val Gly Pro Val Ser Phe Asp Glu Val Thr
10415 10420 10425

Lys Asp Tyr Met Val Ile Ser Trp Lys Pro Pro Leu Asp Asp Gly
10430 10435 10440

Gly Ser Lys Ile Thr Asn Tyr Ile Ile Glu Lys Lys Glu Val Gly
10445 10450 10455

Lys Asp Val Trp Met Pro Val Thr Ser Ala Ser Ala Lys Thr Thr
10460 10465 10470

Cys Lys Val Ser Lys Leu Leu Glu Gly Lys Asp Tyr Ile Phe Arg
10475 10480 10485

Ile His Ala Glu Asn Leu Tyr Gly Ile Ser Asp Pro Leu Val Ser
10490 10495 10500

Asp Ser Met Lys Ala Lys Asp Arg Phe Arg Val Pro Asp Ala Pro
10505 10510 10515

Asp Gln Pro Ile Val Thr Glu Val Thr Lys Asp Ser Ala Leu Val
10520 10525 10530

Thr Trp Asn Lys Pro His Asp Gly Gly Lys Pro Ile Thr Asn Tyr
10535 10540 10545

Ile Leu Glu Lys Arg Glu Thr Met Ser Lys Arg Trp Ala Arg Val
10550 10555 10560

Thr Lys Asp Pro Ile His Pro Tyr Thr Lys Phe Arg Val Pro Asp
10565 10570 10575

Leu Leu Glu Gly Cys Gln Tyr Glu Phe Arg Val Ser Ala Glu Asn
10580 10585 10590

Glu Ile Gly Ile Gly Asp Pro Ser Pro Pro Ser Lys Pro Val Phe
10595 10600 10605

Ala Lys Asp Pro Ile Ala Lys Pro Ser Pro Pro Val Asn Pro Glu
10610 10615 10620

Ala Ile Asp Thr Thr Cys Asn Ser Val Asp Leu Thr Trp Gln Pro
10625 10630 10635

Pro Arg His Asp Gly Gly Ser Lys Ile Leu Gly Tyr Ile Val Glu
10640 10645 10650

Tyr Gln Lys Val Gly Asp Glu Glu Trp Arg Arg Ala Asn His Thr
10655 10660 10665

Pro Glu Ser Cys Pro Glu Thr Lys Tyr Lys Val Thr Gly Leu Arg
10670 10675 10680

Asp Gly Gln Thr Tyr Lys Phe Arg Val Leu Ala Val Asn Ala Ala
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Gly Glu Ser Asp Pro Ala His Val Pro Glu Pro Val Leu Val Lys
10700 10705 10710

Asp Arg Leu Glu Pro Pro Glu Leu Ile Leu Asp Ala Asn Met Ala
10715 10720 10725

Arg Glu Gln His Ile Lys Val Gly Asp Thr Leu Arg Leu Ser Ala
10730 10735 10740

Ile Ile Lys Gly Val Pro Phe Pro Lys Val Thr Trp Lys Lys Glu

10745

10750

10755

Asp Arg Asp Ala Pro Thr Lys Ala Arg Ile Asp Val Thr Pro Val
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Gly Ser Lys Leu Glu Ile Arg Asn Ala Ala His Glu Asp Gly Gly
10775 10780 10785

Ile Tyr Ser Leu Thr Val Glu Asn Pro Ala Gly Ser Lys Thr Val
10790 10795 10800

Ser Val Lys Val Leu Val Leu Asp Lys Pro Gly Pro Pro Arg Asp
10805 10810 10815

Leu Glu Val Ser Glu Ile Arg Lys Asp Ser Cys Tyr Leu Thr Trp
10820 10825 10830

Lys Glu Pro Leu Asp Asp Gly Gly Ser Val Ile Thr Asn Tyr Val
10835 10840 10845

Val Glu Arg Arg Asp Val Ala Ser Ala Gln Trp Ser Pro Leu Ser
10850 10855 10860

Ala Thr Ser Lys Lys Ser His Phe Ala Lys His Leu Asn Glu
10865 10870 10875

Gly Asn Gln Tyr Leu Phe Arg Val Ala Ala Glu Asn Gln Tyr Gly
10880 10885 10890

Arg Gly Pro Phe Val Glu Thr Pro Lys Pro Ile Lys Ala Leu Asp
10895 10900 10905

Pro Leu His Pro Pro Gly Pro Pro Lys Asp Leu His His Val Asp
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Val Asp Lys Thr Glu Val Ser Leu Val Trp Asn Lys Pro Asp Arg
10925 10930 10935

Asp Gly Gly Ser Pro Ile Thr Gly Tyr Leu Val Glu Tyr Gln Glu
10940 10945 10950

Glu Gly Thr Gln Asp Trp Ile Lys Phe Lys Thr Val Thr Asn Leu
10955 10960 10965

Glu Cys Val Val Thr Gly Leu Gln Gln Gly Lys Thr Tyr Arg Phe
 10970 10975 10980

Arg Val Lys Ala Glu Asn Ile Val Gly Leu Gly Leu Pro Asp Thr
 10985 10990 10995

Thr Ile Pro Ile Glu Cys Gln Glu Lys Leu Val Pro Pro Ser Val
 11000 11005 11010

Glu Leu Asp Val Lys Leu Ile Glu Gly Leu Val Val Lys Ala Gly
 11015 11020 11025

Thr Thr Val Arg Phe Pro Ala Ile Ile Arg Gly Val Pro Val Pro
 11030 11035 11040

Thr Ala Lys Trp Thr Thr Asp Gly Ser Glu Ile Lys Thr Asp Glu
 11045 . 11050 11055

His Tyr Thr Val Glu Thr Asp Asn Phe Ser Ser Val Leu Thr Ile
 11060 11065 11070

Lys Asn Cys Leu Arg Arg Asp Thr Gly Glu Tyr Gln Ile Thr Val
 11075 11080 11085

Ser Asn Ala Ala Gly Ser Lys Thr Val Ala Val His Leu Thr Val
 11090 11095 11100

Leu Asp Val Pro Gly Pro Pro Thr Gly Pro Ile Asn Ile Leu Asp
 11105 11110 11115

Val Thr Pro Glu His Met Thr Ile Ser Trp Gln Pro Pro Lys Asp
 11120 11125 11130

Asp Gly Gly Ser Pro Val Ile Asn Tyr Ile Val Glu Lys Gln Asp
 11135 11140 11145

Thr Arg Lys Asp Thr Trp Gly Val Val Ser Ser Gly Ser Ser Lys
 11150 11155 11160

Thr Lys Leu Lys Ile Pro His Leu Gln Lys Gly Cys Glu Tyr Val
 11165 11170 11175

Phe Arg Val Arg Ala Glu Asn Lys Ile Gly Val Gly Pro Pro Leu
 11180 11185 11190

Asp	Ser	Thr	Pro	Thr	Val	Ala	Lys	His	Lys	Phe	Ser	Pro	Pro	Ser	
11195					11200						11205				
Pro	Pro	Gly	Lys	Pro	Val	Val	Thr	Asp	Ile	Thr	Glu	Asn	Ala	Ala	
11210					11215						11220				
Thr	Val	Ser	Trp	Thr	Leu	Pro	Lys	Ser	Asp	Gly	Gly	Ser	Pro	Ile	
11225					11230						11235				
Thr	Gly	Tyr	Tyr	Met	Glu	Arg	Arg	Glu	Val	Thr	Gly	Lys	Trp	Val	
11240					11245						11250				
Arg	Val	Asn	Lys	Thr	Pro	Ile	Ala	Asp	Leu	Lys	Phe	Arg	Val	Thr	
11255					11260						11265				
Gly	Leu	Tyr	Glu	Gly	Asn	Thr	Tyr	Glu	Phe	Arg	Val	Phe	Ala	Glu	
11270					11275						11280				
Asn	Leu	Ala	Gly	Leu	Ser	Lys	Pro	Ser	Pro	Ser	Ser	Asp	Pro	Ile	
11285					11290						11295				
Lys	Ala	Cys	Arg	Pro	Ile	Lys	Pro	Pro	Gly	Pro	Pro	Ile	Asn	Pro	
11300					11305						11310				
Lys	Leu	Lys	Asp	Lys	Ser	Arg	Glu	Thr	Ala	Asp	Leu	Val	Trp	Thr	
11315					11320						11325				
Lys	Pro	Leu	Ser	Asp	Gly	Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Val	Val	
11330					11335						11340				
Glu	Cys	Gln	Lys	Pro	Gly	Thr	Ala	Gln	Trp	Asn	Arg	Ile	Asn	Lys	
11345					11350						11355				
Asp	Glu	Leu	Ile	Arg	Gln	Cys	Ala	Phe	Arg	Val	Pro	Gly	Leu	Ile	
11360					11365						11370				
'	Glu	Gly	Asn	Glu	Tyr	Arg	Phe	Arg	Ile	Lys	Ala	Ala	Asn	Ile	Val
11375					11380						11385				
Gly	Glu	Gly	Glu	Pro	Arg	Glu	Leu	Ala	Glu	Ser	Val	Ile	Ala	Lys	
11390					11395						11400				
Asp	Ile	Leu	His	Pro	Pro	Glu	Val	Glu	Leu	Asp	Val	Thr	Cys	Arg	

11405

11410

11415

Asp Val Ile Thr Val Arg Val Gly Gln Thr Ile Arg Ile Leu Ala
11420 11425 11430

Arg Val Lys Gly Arg Pro Glu Pro Asp Ile Thr Trp Thr Lys Glu
11435 11440 11445

Gly Lys Val Leu Val Arg Glu Lys Arg Val Asp Leu Ile Gln Asp
11450 11455 11460

Leu Pro Arg Val Glu Leu Gln Ile Lys Glu Ala Val Arg Ala Asp
11465 11470 11475

His Gly Lys Tyr Ile Ile Ser Ala Lys Asn Ser Ser Gly His Ala
11480 11485 11490

Gln Gly Ser Ala Ile Val Asn Val Leu Asp Arg Pro Gly Pro Cys
11495 11500 11505

Gln Asn Leu Lys Val Thr Asn Val Thr Lys Glu Asn Cys Thr Ile
11510 11515 11520

Ser Trp Glu Asn Pro Leu Asp Asn Gly Gly Ser Glu Ile Thr Asn
11525 11530 11535

Phe Ile Val Glu Tyr Arg Lys Pro Asn Gln Lys Gly Trp Ser Ile
11540 11545 11550

Val Ala Ser Asp Val Thr Lys Arg Leu Ile Lys Ala Asn Leu Leu
11555 11560 11565

Ala Asn Asn Glu Tyr Tyr Phe Arg Val Cys Ala Glu Asn Lys Val
11570 11575 11580

Gly Val Gly Pro Thr Ile Glu Thr Lys Thr Pro Ile Leu Ala Ile
11585 11590 11595

Asn Pro Ile Asp Arg Pro Gly Glu Pro Glu Asn Leu His Ile Ala
11600 11605 11610

Asp Lys Gly Lys Thr Phe Val Tyr Leu Lys Trp Arg Arg Pro Asp
11615 11620 11625

Tyr Asp Gly Gly Ser Pro Asn Leu Ser Tyr His Val Glu Arg Arg
11630 11635 11640

Leu Lys Gly Ser Asp Asp Trp Glu Arg Val His Lys Gly Ser Ile
11645 11650 11655

Lys Glu Thr His Tyr Met Val Asp Arg Cys Val Glu Asn Gln Ile
11660 11665 11670

Tyr Glu Phe Arg Val Gln Thr Lys Asn Glu Gly Gly Glu Ser Asp
11675 11680 11685

Trp Val Lys Thr Glu Glu Val Val Val Lys Glu Asp Leu Gln Lys
11690 11695 11700

Pro Val Leu Asp Leu Lys Leu Ser Gly Val Leu Thr Val Lys Ala
11705 11710 11715

Gly Asp Thr Ile Arg Leu Glu Ala Gly Val Arg Gly Lys Pro Phe
11720 11725 11730

Pro Glu Val Ala Trp Thr Lys Asp Lys Asp Ala Thr Asp Leu Thr
11735 11740 11745

Arg Ser Pro Arg Val Lys Ile Asp Thr Arg Ala Asp Ser Ser Lys
11750 11755 11760

Phe Ser Leu Thr Lys Ala Lys Arg Ser Asp Gly Gly Lys Tyr Val
11765 11770 11775

Val Thr Ala Thr Asn Thr Ala Gly Ser Phe Val Ala Tyr Ala Thr
11780 11785 11790

Val Asn Val Leu Asp Lys Pro Gly Pro Val Arg Asn Leu Lys Ile
11795 11800 11805

Val Asp Val Ser Ser Asp Arg Cys Thr Val Cys Trp Asp Pro Pro
11810 11815 11820

Glu Asp Asp Gly Gly Cys Glu Ile Gln Asn Tyr Ile Leu Glu Lys
11825 11830 11835

Cys Glu Thr Lys Arg Met Val Trp Ser Thr Tyr Ser Ala Thr Val
11840 11845 11850

Leu	Thr	Pro	Gly	Thr	Thr	Val	Thr	Arg	Leu	Ile	Glu	Gly	Asn	Glu
11855						11860					11865			
Tyr	Ile	Phe	Arg	Val	Arg	Ala	Glu	Asn	Lys	Ile	Gly	Thr	Gly	Pro
11870						11875					11880			
Pro	Thr	Glu	Ser	Lys	Pro	Val	Ile	Ala	Lys	Thr	Lys	Tyr	Asp	Lys
11885						11890					11895			
Pro	Gly	Arg	Pro	Asp	Pro	Pro	Glu	Val	Thr	Lys	Val	Ser	Lys	Glu
11900						11905					11910			
Glu	Met	Thr	Val	Val	Trp	Asn	Pro	Pro	Glu	Tyr	Asp	Gly	Gly	Lys
11915						11920					11925			
Ser	Ile	Thr	Gly	Tyr	Phe	Leu	Glu	Lys	Lys	Glu	Lys	His	Ser	Thr
11930						11935					11940			
Arg	Trp	Val	Pro	Val	Asn	Lys	Ser	Ala	Ile	Pro	Glu	Arg	Arg	Met
11945						11950					11955			
Lys	Val	Gln	Asn	Leu	Leu	Pro	Asp	His	Glu	Tyr	Gln	Phe	Arg	Val
11960						11965					11970			
Lys	Ala	Glu	Asn	Glu	Ile	Gly	Ile	Gly	Glu	Pro	Ser	Leu	Pro	Ser
11975						11980					11985			
Arg	Pro	Val	Val	Ala	Lys	Asp	Pro	Ile	Glu	Pro	Pro	Gly	Pro	Pro
11990						11995					12000			
Thr	Asn	Phe	Arg	Val	Val	Asp	Thr	Thr	Lys	His	Ser	Ile	Thr	Leu
12005						12010					12015			
Gly	Trp	Gly	Lys	Pro	Val	Tyr	Asp	Gly	Gly	Ala	Pro	Ile	Ile	Gly
12020						12025					12030			
Tyr	Val	Val	Glu	Met	Arg	Pro	Lys	Ile	Ala	Asp	Ala	Ser	Pro	Asp
12035						12040					12045			
Glu	Gly	Trp	Lys	Arg	Cys	Asn	Ala	Ala	Ala	Gln	Leu	Val	Arg	Lys
12050						12055					12060			
Glu	Phe	Thr	Val	Thr	Ser	Leu	Asp	Glu	Asn	Gln	Glu	Tyr	Glu	Phe

12065	12070	12075
Arg Val Cys Ala Gln Asn Gln	Val Gly Ile Gly Arg	Pro Ala Glu
12080	12085	12090
Leu Lys Glu Ala Ile Lys Pro	Lys Glu Ile Leu Glu	Pro Pro Glu
12095	12100	12105
Ile Asp Leu Asp Ala Ser Met	Arg Lys Leu Val Ile	Val Arg Ala
12110	12115	12120
Gly Cys Pro Ile Arg Leu Phe	Ala Ile Val Arg Gly	Arg Pro Ala
12125	12130	12135
Pro Lys Val Thr Trp Arg Lys	Val Gly Ile Asp Asn	Val Val Arg
12140	12145	12150
Lys Gly Gln Val Asp Leu Val	Asp Thr Met Ala Phe	Leu Val Ile
12155	12160	12165
Pro Asn Ser Thr Arg Asp Asp	Ser Gly Lys Tyr Ser	Leu Thr Leu
12170	12175	12180
Val Asn Pro Ala Gly Glu Lys	Ala Val Phe Val Asn	Val Arg Val
12185	12190	12195
Leu Asp Thr Pro Gly Pro Val	Ser Asp Leu Lys Val	Ser Asp Val
12200	12205	12210
Thr Lys Thr Ser Cys His Val	Ser Trp Ala Pro Pro	Glu Asn Asp
12215	12220	12225
Gly Gly Ser Gln Val Thr His	Tyr Ile Val Glu Lys	Arg Glu Ala
12230	12235	12240
Asp Arg Lys Thr Trp Ser Thr	Val Thr Pro Glu Val	Lys Lys Thr
12245	12250	12255
Ser Phe His Val Thr Asn Leu	Val Pro Gly Asn Glu	Tyr Tyr Phe
12260	12265	12270
Arg Val Thr Ala Val Asn Glu	Tyr Gly Pro Gly Val	Pro Thr Asp
12275	12280	12285

Val	Pro	Lys	Pro	Val	Leu	Ala	Ser	Asp	Pro	Leu	Ser	Glu	Pro	Asp
12290					12295						12300			
Pro	Pro	Arg	Lys	Leu	Glu	Ala	Thr	Glu	Met	Thr	Lys	Asn	Ser	Ala
12305					12310						12315			
Thr	Leu	Ala	Trp	Leu	Pro	Pro	Leu	Arg	Asp	Gly	Gly	Ala	Lys	Ile
12320					12325						12330			
Asp	Gly	Tyr	Ile	Ile	Ser	Tyr	Arg	Glu	Glu	Glu	Gln	Pro	Ala	Asp
12335					12340						12345			
Arg	Trp	Thr	Glu	Tyr	Ser	Val	Val	Lys	Asp	Leu	Ser	Leu	Val	Val
12350					12355						12360			
Thr	Gly	Leu	Lys	Glu	Gly	Lys	Lys	Tyr	Lys	Phe	Arg	Val	Ala	Ala
12365					12370						12375			
Arg	Asn	Ala	Val	Gly	Val	Ser	Leu	Pro	Arg	Glu	Ala	Glu	Gly	Val
12380					12385						12390			
Tyr	Glu	Ala	Lys	Glu	Gln	Leu	Leu	Pro	Pro	Lys	Ile	Leu	Met	Pro
12395					12400						12405			
Glu	Gln	Ile	Thr	Ile	Lys	Ala	Gly	Lys	Lys	Leu	Arg	Ile	Glu	Ala
12410					12415						12420			
His	Val	Tyr	Gly	Lys	Pro	His	Pro	Thr	Cys	Lys	Trp	Lys	Lys	Gly
12425					12430						12435			
Glu	Asp	Glu	Val	Val	Thr	Ser	Ser	His	Leu	Ala	Val	His	Lys	Ala
12440					12445						12450			
Asp	Ser	Ser	Ser	Ile	Leu	Ile	Ile	Lys	Asp	Val	Thr	Arg	Lys	Asp
12455					12460						12465			
Ser	Gly	Tyr	Tyr	Ser	Leu	Thr	Ala	Glu	Asn	Ser	Ser	Gly	Thr	Asp
12470					12475						12480			
Thr	Gln	Lys	Ile	Lys	Val	Val	Val	Met	Asp	Ala	Pro	Gly	Pro	Pro
12485					12490						12495			
Gln	Pro	Pro	Phe	Asp	Ile	Ser	Asp	Ile	Asp	Ala	Asp	Ala	Cys	Ser
12500					12505						12510			

Leu Ser Trp His Ile Pro Leu Glu Asp Gly Gly Ser Asn Ile Thr
 12515 12520 12525

Asn Tyr Ile Val Glu Lys Cys Asp Val Ser Arg Gly Asp Trp Val
 12530 12535 12540

Thr Ala Leu Ala Ser Val Thr Lys Thr Ser Cys Arg Val Gly Lys
 12545 12550 12555

Leu Ile Pro Gly Gln Glu Tyr Ile Phe Arg Val Arg Ala Glu Asn
 12560 12565 12570

Arg Phe Gly Ile Ser Glu Pro Leu Thr Ser Pro Lys Met Val Ala
 12575 12580 12585

Gln Phe Pro Phe Gly Val Pro Ser Glu Pro Lys Asn Ala Arg Val
 12590 12595 12600

Thr Lys Val Asn Lys Asp Cys Ile Phe Val Ala Trp Asp Arg Pro
 12605 12610 12615

Asp Ser Asp Gly Gly Ser Pro Ile Ile Gly Tyr Leu Ile Glu Arg
 12620 12625 12630

Lys Glu Arg Asn Ser Leu Leu Trp Val Lys Ala Asn Asp Thr Leu
 12635 12640 12645

Val Arg Ser Thr Glu Tyr Pro Cys Ala Gly Leu Val Glu Gly Leu
 12650 12655 12660

Glu Tyr Ser Phe Arg Ile Tyr Ala Leu Asn Lys Ala Gly Ser Ser
 12665 12670 12675

Pro Pro Ser Lys Pro Thr Glu Tyr Val Thr Ala Arg Met Pro Val
 12680 12685 12690

Asp Pro Pro Gly Lys Pro Glu Val Ile Asp Val Thr Lys Ser Thr
 12695 12700 12705

Val Ser Leu Ile Trp Ala Arg Pro Lys His Asp Gly Gly Ser Lys
 12710 12715 12720

Ile Ile Gly Tyr Phe Val Glu Ala Cys Lys Leu Pro Gly Asp Lys

12725

12730

12735

Trp Val Arg Cys Asn Thr Ala Pro His Gln Ile Pro Gln Glu Glu
12740 12745 12750

Tyr Thr Ala Thr Gly Leu Glu Glu Lys Ala Gln Tyr Gln Phe Arg
12755 12760 12765

Ala Ile Ala Arg Thr Ala Val Asn Ile Ser Pro Pro Ser Glu Pro
12770 12775 12780

Ser Asp Pro Val Thr Ile Leu Ala Glu Asn Val Pro Pro Arg Ile
12785 12790 12795

Asp Leu Ser Val Ala Met Lys Ser Leu Leu Thr Val Lys Ala Gly
12800 12805 12810

Thr Asn Val Cys Leu Asp Ala Thr Val Phe Gly Lys Pro Met Pro
12815 12820 12825

Thr Val Ser Trp Lys Lys Asp Gly Thr Leu Leu Lys Pro Ala Glu
12830 12835 12840

Gly Ile Lys Met Ala Met Gln Arg Asn Leu Cys Thr Leu Glu Leu
12845 12850 12855

Phe Ser Val Asn Arg Lys Asp Ser Gly Asp Tyr Thr Ile Thr Ala
12860 12865 12870

Glu Asn Ser Ser Gly Ser Lys Ser Ala Thr Ile Lys Leu Lys Val
12875 12880 12885

Leu Asp Lys Pro Gly Pro Pro Ala Ser Val Lys Ile Asn Lys Met
12890 12895 12900

Tyr Ser Asp Arg Ala Met Leu Ser Trp Glu Pro Pro Leu Glu Asp
12905 12910 12915

Gly Gly Ser Glu Ile Thr Asn Tyr Ile Val Asp Lys Arg Glu Thr
12920 12925 12930

Ser Arg Pro Asn Trp Ala Gln Val Ser Ala Thr Val Pro Ile Thr
12935 12940 12945

Ser Cys Ser Val Glu Lys Leu Ile Glu Gly His Glu Tyr Gln Phe
 12950 12955 12960

Arg Ile Cys Ala Glu Asn Lys Tyr Gly Val Gly Asp Pro Val Phe
 12965 12970 12975

Thr Glu Pro Ala Ile Ala Lys Asn Pro Tyr Asp Pro Pro Gly Arg
 12980 12985 12990

Cys Asp Pro Pro Val Ile Ser Asn Ile Thr Lys Asp His Met Thr
 12995 13000 13005

Val Ser Trp Lys Pro Pro Ala Asp Asp Gly Gly Ser Pro Ile Thr
 13010 13015 13020

Gly Tyr Leu Leu Glu Lys Arg Glu Thr Gln Ala Val Asn Trp Thr
 13025 13030 13035

Lys Val Asn Arg Lys Pro Ile Ile Glu Arg Thr Leu Lys Ala Thr
 13040 13045 13050

Gly Leu Gln Glu Gly Thr Glu Tyr Glu Phe Arg Val Thr Ala Ile
 13055 13060 13065

Asn Lys Ala Gly Pro Gly Lys Pro Ser Asp Ala Ser Lys Ala Ala
 13070 13075 13080

Tyr Ala Arg Asp Pro Gln Tyr Pro Pro Ala Pro Pro Ala Phe Pro
 13085 13090 13095

Lys Val Tyr Asp Thr Thr Arg Ser Ser Val Ser Leu Ser Trp Gly
 13100 13105 13110

Lys Pro Ala Tyr Asp Gly Gly Ser Pro Ile Ile Gly Tyr Leu Val
 13115 13120 13125

Glu Val Lys Arg Ala Asp Ser Asp Asn Trp Val Arg Cys Asn Leu
 13130 13135 13140

Pro Gln Asn Leu Gln Lys Thr Arg Phe Glu Val Thr Gly Leu Met
 13145 13150 13155

Glu Asp Thr Gln Tyr Gln Phe Arg Val Tyr Ala Val Asn Lys Ile
 13160 13165 13170

Gly	Tyr	Ser	Asp	Pro	Ser	Asp	Val	Pro	Asp	Lys	His	Tyr	Pro	Lys
13175						13180						13185		
Asp	Ile	Leu	Ile	Pro	Pro	Glu	Gly	Glu	His	Asp	Ala	Asp	Leu	Arg
13190						13195						13200		
Lys	Thr	Leu	Ile	Leu	Arg	Ala	Gly	Val	Thr	Met	Arg	Leu	Tyr	Val
13205						13210						13215		
Pro	Val	Lys	Gly	Arg	Pro	Pro	Pro	Lys	Ile	Thr	Trp	Ser	Lys	Pro
13220						13225						13230		
Asn	Val	Asn	Leu	Arg	Asp	Arg	Ile	Gly	Leu	Asp	Ile	Lys	Ser	Thr
13235						13240						13245		
Asp	Phe	Asp	Thr	Phe	Leu	Arg	Cys	Glu	Asn	Val	Asn	Lys	Tyr	Asp
13250						13255						13260		
Ala	Gly	Lys	Tyr	Ile	Leu	Thr	Leu	Glu	Asn	Ser	Cys	Gly	Lys	Lys
13265						13270						13275		
Glu	Tyr	Thr	Ile	Val	Val	Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro
13280						13285						13290		
Ile	Asn	Val	Thr	Val	Lys	Glu	Ile	Ser	Lys	Asp	Ser	Ala	Tyr	Val
13295						13300						13305		
Thr	Trp	Glu	Pro	Pro	Ile	Ile	Asp	Gly	Gly	Ser	Pro	Ile	Ile	Asn
13310						13315						13320		
Tyr	Val	Val	Gln	Lys	Arg	Asp	Ala	Glu	Arg	Lys	Ser	Trp	Ser	Thr
13325						13330						13335		
Val	Thr	Thr	Glu	Cys	Ser	Lys	Thr	Ser	Phe	Arg	Val	Pro	Asn	Leu
13340						13345						13350		
Glu	Glu	Gly	Lys	Ser	Tyr	Phe	Phe	Arg	Val	Phe	Ala	Glu	Asn	Glu
13355						13360						13365		
Tyr	Gly	Ile	Gly	Asp	Pro	Gly	Glu	Thr	Arg	Asp	Ala	Val	Lys	Ala
13370						13375						13380		
Ser	Gln	Thr	Pro	Gly	Pro	Val	Val	Asp	Leu	Lys	Val	Arg	Ser	Val

13385	13390	13395
Ser Lys Ser Ser Cys Ser Ile Gly Trp Lys Lys Pro His Ser Asp		
13400	13405	13410
Gly Gly Ser Arg Ile Ile Gly Tyr Val Val Asp Phe Leu Thr Glu		
13415	13420	13425
Glu Asn Lys Trp Gln Arg Val Met Lys Ser Leu Ser Leu Gln Tyr		
13430	13435	13440
Ser Ala Lys Asp Leu Thr Glu Gly Lys Glu Tyr Thr Phe Arg Val		
13445	13450	13455
Ser Ala Glu Asn Glu Asn Gly Glu Gly Thr Pro Ser Glu Ile Thr		
13460	13465	13470
Val Val Ala Arg Asp Asp Val Val Ala Pro Asp Leu Asp Leu Lys		
13475	13480	13485
Gly Leu Pro Asp Leu Cys Tyr Leu Ala Lys Glu Asn Ser Asn Phe		
13490	13495	13500
Arg Leu Lys Ile Pro Ile Lys Gly Lys Pro Ala Pro Ser Val Ser		
13505	13510	13515
Trp Lys Lys Gly Glu Asp Pro Leu Ala Thr Asp Thr Arg Val Ser		
13520	13525	13530
Val Glu Ser Ser Ala Val Asn Thr Thr Leu Ile Val Tyr Asp Cys		
13535	13540	13545
Gln Lys Ser Asp Ala Gly Lys Tyr Thr Ile Thr Leu Lys Asn Val		
13550	13555	13560
Ala Gly Thr Lys Glu Gly Thr Ile Ser Ile Lys Val Val Gly Lys		
13565	13570	13575
Pro Gly Ile Pro Thr Gly Pro Ile Lys Phe Asp Glu Val Thr Ala		
13580	13585	13590
Glu Ala Met Thr Leu Lys Trp Ala Pro Pro Lys Asp Asp Gly Gly		
13595	13600	13605

Ser Glu Ile Thr Asn Tyr Ile Leu Glu Lys Arg Asp Ser Val Asn
13610 13615 13620

Asn Lys Trp Val Thr Cys Ala Ser Ala Val Gln Lys Thr Thr Phe
13625 13630 13635

Arg Val Thr Arg Leu His Glu Gly Met Glu Tyr Thr Phe Arg Val
13640 13645 13650

Ser Ala Glu Asn Lys Tyr Gly Val Gly Glu Gly Leu Lys Ser Glu
13655 13660 13665

Pro Ile Val Ala Arg His Pro Phe Asp Val Pro Asp Ala Pro Pro
13670 13675 13680

Pro Pro Asn Ile Val Asp Val Arg His Asp Ser Val Ser Leu Thr
13685 13690 13695

Trp Thr Asp Pro Lys Lys Thr Gly Gly Ser Pro Ile Thr Gly Tyr
13700 13705 13710

His Leu Glu Phe Lys Glu Arg Asn Ser Leu Leu Trp Lys Arg Ala
13715 13720 13725

Asn Lys Thr Pro Ile Arg Met Arg Asp Phe Lys Val Thr Gly Leu
13730 13735 13740

Thr Glu Gly Leu Glu Tyr Glu Phe Arg Val Met Ala Ile Asn Leu
13745 13750 13755

Ala Gly Val Gly Lys Pro Ser Leu Pro Ser Glu Pro Val Val Ala
13760 13765 13770

Leu Asp Pro Ile Asp Pro Pro Gly Lys Pro Glu Val Ile Asn Ile
13775 13780 13785

Thr Arg Asn Ser Val Thr Leu Ile Trp Thr Glu Pro Lys Tyr Asp
13790 13795 13800

Gly Gly His Lys Leu Thr Gly Tyr Ile Val Glu Lys Arg Asp Leu
13805 13810 13815

Pro Ser Lys Ser Trp Met Lys Ala Asn His Val Asn Val Pro Glu
13820 13825 13830

Cys	Ala	Phe	Thr	Val	Thr	Asp	Leu	Val	Glu	Gly	Gly	Lys	Tyr	Glu
13835						13840						13845		
Phe	Arg	Ile	Arg	Ala	Lys	Asn	Thr	Ala	Gly	Ala	Ile	Ser	Ala	Pro
13850						13855					13860			
Ser	Glu	Ser	Thr	Glu	Thr	Ile	Ile	Cys	Lys	Asp	Glu	Tyr	Glu	Ala
13865						13870					13875			
Pro	Thr	Ile	Val	Leu	Asp	Pro	Thr	Ile	Lys	Asp	Gly	Leu	Thr	Ile
13880						13885					13890			
Lys	Ala	Gly	Asp	Thr	Ile	Val	Leu	Asn	Ala	Ile	Ser	Ile	Leu	Gly
13895						13900					13905			
Lys	Pro	Leu	Pro	Lys	Ser	Ser	Trp	Ser	Lys	Ala	Gly	Lys	Asp	Ile
13910						13915					13920			
Arg	Pro	Ser	Asp	Ile	Thr	Gln	Ile	Thr	Ser	Thr	Pro	Thr	Ser	Ser
13925						13930					13935			
Met	Leu	Thr	Ile	Lys	Tyr	Ala	Thr	Arg	Lys	Asp	Ala	Gly	Glu	Tyr
13940						13945					13950			
Thr	Ile	Thr	Ala	Thr	Asn	Pro	Phe	Gly	Thr	Lys	Val	Glu	His	Val
13955						13960					13965			
Lys	Val	Thr	Val	Leu	Asp	Val	Pro	Gly	Pro	Pro	Gly	Pro	Val	Glu
13970						13975					13980			
Ile	Ser	Asn	Val	Ser	Ala	Glu	Lys	Ala	Thr	Leu	Thr	Trp	Thr	Pro
13985						13990					13995			
Pro	Leu	Glu	Asp	Gly	Gly	Ser	Pro	Ile	Lys	Ser	Tyr	Ile	Leu	Glu
14000						14005					14010			
Lys	Arg	Glu	Thr	Ser	Arg	Leu	Leu	Trp	Thr	Val	Val	Ser	Glu	Asp
14015						14020					14025			
Ile	Gln	Ser	Cys	Arg	His	Val	Ala	Thr	Lys	Leu	Ile	Gln	Gly	Asn
14030						14035					14040			
Glu	Tyr	Ile	Phe	Arg	Val	Ser	Ala	Val	Asn	His	Tyr	Gly	Lys	Gly

14045

14050

14055

Glu Pro Val Gln Ser Glu Pro Val Lys Met Val Asp Arg Phe Gly
14060 14065 14070

Pro Pro Gly Pro Pro Glu Lys Pro Glu Val Ser Asn Val Thr Lys
14075 14080 14085

Asn Thr Ala Thr Val Ser Trp Lys Arg Pro Val Asp Asp Gly Gly
14090 14095 14100

Ser Glu Ile Thr Gly Tyr His Val Glu Arg Arg Glu Lys Lys Ser
14105 14110 14115

Leu Arg Trp Val Arg Ala Ile Lys Thr Pro Val Ser Asp Leu Arg
14120 14125 14130

Cys Lys Val Thr Gly Leu Gln Glu Gly Ser Thr Tyr Glu Phe Arg
14135 14140 14145

Val Ser Ala Glu Asn Arg Ala Gly Ile Gly Pro Pro Ser Glu Ala
14150 14155 14160

Ser Asp Ser Val Leu Met Lys Asp Ala Ala Tyr Pro Pro Gly Pro
14165 14170 14175

Pro Ser Asn Pro His Val Thr Asp Thr Thr Lys Lys Ser Ala Ser
14180 14185 14190

Leu Ala Trp Gly Lys Pro His Tyr Asp Gly Gly Leu Glu Ile Thr
14195 14200 14205

Gly Tyr Val Val Glu His Gln Lys Val Gly Asp Glu Ala Trp Ile
14210 14215 14220

Lys Asp Thr Thr Gly Thr Ala Leu Arg Ile Thr Gln Phe Val Val
14225 14230 14235

Pro Asp Leu Gln Thr Lys Glu Lys Tyr Asn Phe Arg Ile Ser Ala
14240 14245 14250

Ile Asn Asp Ala Gly Val Gly Glu Pro Ala Val Ile Pro Asp Val
14255 14260 14265

Glu Ile Val Glu Arg Glu Met Ala Pro Asp Phe Glu Leu Asp Ala
14270 14275 14280

Glu Leu Arg Arg Thr Leu Val Val Arg Ala Gly Leu Ser Ile Arg
14285 14290 14295

Ile Phe Val Pro Ile Lys Gly Arg Pro Ala Pro Glu Val Thr Trp
14300 14305 14310

Thr Lys Asp Asn Ile Asn Leu Lys Asn Arg Ala Asn Ile Glu Asn
14315 14320 14325

Thr Glu Ser Phe Thr Leu Leu Ile Ile Pro Glu Cys Asn Arg Tyr
14330 14335 14340

Asp Thr Gly Lys Phe Val Met Thr Ile Glu Asn Pro Ala Gly Lys
14345 14350 14355

Lys Ser Gly Phe Val Asn Val Arg Val Leu Asp Thr Pro Gly Pro
14360 14365 14370

Val Leu Asn Leu Arg Pro Thr Asp Ile Thr Lys Asp Ser Val Thr
14375 14380 14385

Leu His Trp Asp Leu Pro Leu Ile Asp Gly Gly Ser Arg Ile Thr
14390 14395 14400

Asn Tyr Ile Val Glu Lys Arg Glu Ala Thr Arg Lys Ser Tyr Ser
14405 14410 14415

Thr Ala Thr Thr Lys Cys His Lys Cys Thr Tyr Lys Val Thr Gly
14420 14425 14430

Leu Ser Glu Gly Cys Glu Tyr Phe Phe Arg Val Met Ala Glu Asn
14435 14440 14445

Glu Tyr Gly Ile Gly Glu Pro Thr Glu Thr Thr Glu Pro Val Lys
14450 14455 14460

Ala Ser Glu Ala Pro Ser Pro Pro Asp Ser Leu Asn Ile Met Asp
14465 14470 14475

Ile Thr Lys Ser Thr Val Ser Leu Ala Trp Pro Lys Pro Lys His
14480 14485 14490

Asp Gly Gly Ser Lys Ile Thr Gly Tyr Val Ile Glu Ala Gln Arg
14495 14500 14505

Lys Gly Ser Asp Gln Trp Thr His Ile Thr Thr Val Lys Gly Leu
14510 14515 14520

Glu Cys Val Val Arg Asn Leu Thr Glu Gly Glu Glu Tyr Thr Phe
14525 14530 14535

Gln Val Met Ala Val Asn Ser Ala Gly Arg Ser Ala Pro Arg Glu
14540 14545 14550

Ser Arg Pro Val Ile Val Lys Glu Gln Thr Met Leu Pro Glu Leu
14555 14560 14565

Asp Leu Arg Gly Ile Tyr Gln Lys Leu Val Ile Ala Lys Ala Gly
14570 14575 14580

Asp Asn Ile Lys Val Glu Ile Pro Val Leu Gly Arg Pro Lys Pro
14585 14590 14595

Thr Val Thr Trp Lys Lys Gly Asp Gln Ile Leu Lys Gln Thr Gln
14600 14605 14610

Arg Val Asn Phe Glu Thr Thr Ala Thr Ser Thr Ile Leu Asn Ile
14615 14620 14625

Asn Glu Cys Val Arg Ser Asp Ser Gly Pro Tyr Pro Leu Thr Ala
14630 14635 14640

Arg Asn Ile Val Gly Glu Val Gly Asp Val Ile Thr Ile Gln Val
14645 14650 14655

His Asp Ile Pro Gly Pro Pro Thr Gly Pro Ile Lys Phe Asp Glu
14660 14665 14670

Val Ser Ser Asp Phe Val Thr Phe Ser Trp Asp Pro Pro Glu Asn
14675 14680 14685

Asp Gly Gly Val Pro Ile Ser Asn Tyr Val Val Glu Met Arg Gln
14690 14695 14700

Thr Asp Ser Thr Thr Trp Val Glu Leu Ala Thr Thr Val Ile Arg

14705

14710

14715

Thr Thr Tyr Lys Ala Thr Arg Leu Thr Thr Gly Leu Glu Tyr Gln
14720 14725 14730

Phe Arg Val Lys Ala Gln Asn Arg Tyr Gly Val Gly Pro Gly Ile
14735 14740 14745

Thr Ser Ala Trp Ile Val Ala Asn Tyr Pro Phe Lys Val Pro Gly
14750 14755 14760

Pro Pro Gly Thr Pro Gln Val Thr Ala Val Thr Lys Asp Ser Met
14765 14770 14775

Thr Ile Ser Trp His Glu Pro Leu Ser Asp Gly Gly Ser Pro Ile
14780 14785 14790

Leu Gly Tyr His Val Glu Arg Lys Glu Arg Asn Gly Ile Leu Trp
14795 14800 14805

Gln Thr Val Ser Lys Ala Leu Val Pro Gly Asn Ile Phe Lys Ser
14810 14815 14820

Ser Gly Leu Thr Asp Gly Ile Ala Tyr Glu Phe Arg Val Ile Ala
14825 14830 14835

Glu Asn Met Ala Gly Lys Ser Lys Pro Ser Lys Pro Ser Glu Pro
14840 14845 14850

Met Leu Ala Leu Asp Pro Ile Asp Pro Pro Gly Lys Pro Val Pro
14855 14860 14865

Leu Asn Ile Thr Arg His Thr Val Thr Leu Lys Trp Ala Lys Pro
14870 14875 14880

Glu Tyr Thr Gly Gly Phe Lys Ile Thr Ser Tyr Ile Val Glu Lys
14885 14890 14895

Arg Asp Leu Pro Asn Gly Arg Trp Leu Lys Ala Asn Phe Ser Asn
14900 14905 14910

Ile Leu Glu Asn Glu Phe Thr Val Ser Gly Leu Thr Glu Asp Ala
14915 14920 14925

Ala Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala Ala Gly Ala Ile
14930 14935 14940

Ser Pro Pro Ser Glu Pro Ser Asp Ala Ile Thr Cys Arg Asp Asp
14945 14950 14955

Val Glu Ala Pro Lys Ile Lys Val Asp Val Lys Phe Lys Asp Thr
14960 14965 14970

Val Ile Leu Lys Ala Gly Glu Ala Phe Arg Leu Glu Ala Asp Val
14975 14980 14985

Ser Gly Arg Pro Pro Pro Thr Met Glu Trp Ser Lys Asp Gly Lys
14990 14995 15000

Glu Leu Glu Gly Thr Ala Lys Leu Glu Ile Lys Ile Ala Asp Phe
15005 15010 15015

Ser Thr Asn Leu Val Asn Lys Asp Ser Thr Arg Arg Asp Ser Gly
15020 15025 15030

Ala Tyr Thr Leu Thr Ala Thr Asn Pro Gly Gly Phe Ala Lys His
15035 15040 15045

Ile Phe Asn Val Lys Val Leu Asp Arg Pro Gly Pro Pro Glu Gly
15050 15055 15060

Pro Leu Ala Val Thr Glu Val Thr Ser Glu Lys Cys Val Leu Ser
15065 15070 15075

Trp Phe Pro Pro Leu Asp Asp Gly Gly Ala Lys Ile Asp His Tyr
15080 15085 15090

Ile Val Gln Lys Arg Glu Thr Ser Arg Leu Ala Trp Thr Asn Val
15095 15100 15105

Ala Ser Glu Val Gln Val Thr Lys Leu Lys Val Thr Lys Leu Leu
15110 15115 15120

Lys Gly Asn Glu Tyr Ile Phe Arg Val Met Ala Val Asn Lys Tyr
15125 15130 15135

Gly Val Gly Glu Pro Leu Glu Ser Glu Pro Val Leu Ala Val Asn
15140 15145 15150

Pro Tyr Gly Pro Pro Asp Pro Pro Lys Asn Pro Glu Val Thr Thr
 15155 15160 15165

 Ile Thr Lys Asp Ser Met Val Val Cys Trp Gly His Pro Asp Ser
 15170 15175 15180

 Asp Gly Gly Ser Glu Ile Ile Asn Tyr Ile Val Glu Arg Arg Asp
 15185 15190 15195

 Lys Ala Gly Gln Arg Trp Ile Lys Cys Asn Lys Lys Thr Leu Thr
 15200 15205 15210

 Asp Leu Arg Tyr Lys Val Ser Gly Leu Thr Glu Gly His Glu Tyr
 15215 15220 15225

 Glu Phe Arg Ile Met Ala Glu Asn Ala Ala Gly Ile Ser Ala Pro
 15230 15235 15240

 Ser Pro Thr Ser Pro Phe Tyr Lys Ala Cys Asp Thr Val Phe Lys
 15245 15250 15255

 Pro Gly Pro Pro Gly Asn Pro Arg Val Leu Asp Thr Ser Arg Ser
 15260 15265 15270

 Ser Ile Ser Ile Ala Trp Asn Lys Pro Ile Tyr Asp Gly Gly Ser
 15275 15280 15285

 Glu Ile Thr Gly Tyr Met Val Glu Ile Ala Leu Pro Glu Glu Asp
 15290 15295 15300

 Glu Trp Gln Ile Val Thr Pro Pro Ala Gly Leu Lys Ala Thr Ser
 15305 15310 15315

 Tyr Thr Ile Thr Gly Leu Thr Glu Asn Gln Glu Tyr Lys Ile Arg
 15320 15325 15330

 Ile Tyr Ala Met Asn Ser Glu Gly Leu Gly Glu Pro Ala Leu Val
 15335 15340 15345

 Pro Gly Thr Pro Lys Ala Glu Asp Arg Met Leu Pro Pro Glu Ile
 15350 15355 15360

 Glu Leu Asp Ala Asp Leu Arg Lys Val Val Thr Ile Arg Ala Cys

15365

15370

15375

Cys Thr Leu Arg Leu Phe Val Pro Ile Lys Gly Arg Pro Asp Pro
15380 15385 15390

Glu Val Lys Trp Ala Arg Asp His Gly Glu Ser Leu Asp Lys Ala
15395 15400 15405

Ser Ile Glu Ser Ala Ser Ser Tyr Thr Leu Leu Ile Val Gly Asn
15410 15415 15420

Val Asn Arg Phe Asp Ser Gly Lys Tyr Ile Leu Thr Val Glu Asn
15425 15430 15435

Ser Ser Gly Ser Lys Ser Ala Phe Val Asn Val Arg Val Leu Asp
15440 15445 15450

Thr Pro Gly Pro Pro Gln Asp Leu Lys Val Lys Glu Val Thr Lys
15455 15460 15465

Thr Ser Val Thr Leu Thr Trp Asp Pro Pro Leu Leu Asp Gly Gly
15470 15475 15480

Ser Lys Ile Lys Asn Tyr Ile Val Glu Lys Arg Glu Ser Thr Arg
15485 15490 15495

Lys Ala Tyr Ser Thr Val Ala Thr Asn Cys His Lys Thr Ser Trp
15500 15505 15510

Lys Val Asp Gln Leu Gln Glu Gly Cys Ser Tyr Tyr Phe Arg Val
15515 15520 15525

Leu Ala Glu Asn Glu Tyr Gly Ile Gly Leu Pro Ala Glu Thr Ala
15530 15535 15540

Glu Ser Val Lys Ala Ser Glu Arg Pro Leu Pro Pro Gly Lys Ile
15545 15550 15555

Thr Leu Met Asp Val Thr Arg Asn Ser Val Ser Leu Ser Trp Glu
15560 15565 15570

Lys Pro Glu His Asp Gly Gly Ser Arg Ile Leu Gly Tyr Ile Val
15575 15580 15585

Glu Met Gln Thr Lys Gly Ser Asp Lys Trp Ala Thr Cys Ala Thr
15590 15595 15600

Val Lys Val Thr Glu Ala Thr Ile Thr Gly Leu Ile Gln Gly Glu
15605 15610 15615

Glu Tyr Ser Phe Arg Val Ser Ala Gln Asn Glu Lys Gly Ile Ser
15620 15625 15630

Asp Pro Arg Gln Leu Ser Val Pro Val Ile Ala Lys Asp Leu Val
15635 15640 15645

Ile Pro Pro Ala Phe Lys Leu Leu Phe Asn Thr Phe Thr Val Leu
15650 15655 15660

Ala Gly Glu Asp Leu Lys Val Asp Val Pro Phe Ile Gly Arg Pro
15665 15670 15675

Thr Pro Ala Val Thr Trp His Lys Asp Asn Val Pro Leu Lys Gln
15680 15685 15690

Thr Thr Arg Val Asn Ala Glu Ser Thr Glu Asn Asn Ser Leu Leu
15695 15700 15705

Thr Ile Lys Asp Ala Cys Arg Glu Asp Val Gly His Tyr Val Val
15710 15715 15720

Lys Leu Thr Asn Ser Ala Gly Glu Ala Ile Glu Thr Leu Asn Val
15725 15730 15735

Ile Val Leu Asp Lys Pro Gly Pro Pro Thr Gly Pro Val Lys Met
15740 15745 15750

Asp Glu Val Thr Ala Asp Ser Ile Thr Leu Ser Trp Gly Pro Pro
15755 15760 15765

Lys Tyr Asp Gly Gly Ser Ser Ile Asn Asn Tyr Ile Val Glu Lys
15770 15775 15780

Arg Asp Thr Ser Thr Thr Trp Gln Ile Val Ser Ala Thr Val
15785 15790 15795

Ala Arg Thr Thr Ile Lys Ala Cys Arg Leu Lys Thr Gly Cys Glu
15800 15805 15810

Tyr	Gln	Phe	Arg	Ile	Ala	Ala	Glu	Asn	Arg	Tyr	Gly	Lys	Ser	Thr
15815						15820					15825			
Tyr	Leu	Asn	Ser	Glu	Pro	Thr	Val	Ala	Gln	Tyr	Pro	Phe	Lys	Val
15830						15835					15840			
Pro	Gly	Pro	Pro	Gly	Thr	Pro	Val	Val	Thr	Leu	Ser	Ser	Arg	Asp
15845						15850					15855			
Ser	Met	Glu	Val	Gln	Trp	Asn	Glu	Pro	Ile	Ser	Asp	Gly	Gly	Ser
15860						15865					15870			
Arg	Val	Ile	Gly	Tyr	His	Leu	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Ile
15875						15880					15885			
Leu	Trp	Val	Lys	Leu	Asn	Lys	Thr	Pro	Ile	Pro	Gln	Thr	Lys	Phe
15890						15895					15900			
Lys	Thr	Thr	Gly	Leu	Glu	Glu	Gly	Val	Glu	Tyr	Glu	Phe	Arg	Val
15905						15910					15915			
Ser	Ala	Glu	Asn	Ile	Val	Gly	Ile	Gly	Lys	Pro	Ser	Lys	Val	Ser
15920						15925					15930			
Glu	Cys	Tyr	Val	Ala	Arg	Asp	Pro	Cys	Asp	Pro	Pro	Gly	Arg	Pro
15935						15940					15945			
Glu	Ala	Ile	Ile	Val	Thr	Arg	Asn	Ser	Val	Thr	Leu	Gln	Trp	Lys
15950						15955					15960			
Lys	Pro	Thr	Tyr	Asp	Gly	Gly	Ser	Lys	Ile	Thr	Gly	Tyr	Ile	Val
15965						15970					15975			
Glu	Lys	Lys	Glu	Leu	Pro	Glu	Gly	Arg	Trp	Met	Lys	Ala	Ser	Phe
15980						15985					15990			
Thr	Asn	Ile	Ile	Asp	Thr	His	Phe	Glu	Val	Thr	Gly	Leu	Val	Glu
15995						16000					16005			
Asp	His	Arg	Tyr	Glu	Phe	Arg	Val	Ile	Ala	Arg	Asn	Ala	Ala	Gly
16010						16015					16020			
Val	Phe	Ser	Glu	Pro	Ser	Glu	Ser	Thr	Gly	Ala	Ile	Thr	Ala	Arg

16025	16030	16035
Asp Glu Val Asp Pro Pro Arg Ile Ser Met Asp Pro Lys Tyr Lys		
16040	16045	16050
Asp Thr Ile Val Val His Ala Gly Glu Ser Phe Lys Val Asp Ala		
16055	16060	16065
Asp Ile Tyr Gly Lys Pro Ile Pro Thr Ile Gln Trp Ile Lys Gly		
16070	16075	16080
Asp Gln Glu Leu Ser Asn Thr Ala Arg Leu Glu Ile Lys Ser Thr		
16085	16090	16095
Asp Phe Ala Thr Ser Leu Ser Val Lys Asp Ala Val Arg Val Asp		
16100	16105	16110
Ser Gly Asn Tyr Ile Leu Lys Ala Lys Asn Val Ala Gly Glu Arg		
16115	16120	16125
Ser Val Thr Val Asn Val Lys Val Leu Asp Arg Pro Gly Pro Pro		
16130	16135	16140
Glu Gly Pro Val Val Ile Ser Gly Val Thr Ala Glu Lys Cys Thr		
16145	16150	16155
Leu Ala Trp Lys Pro Pro Leu Gln Asp Gly Gly Ser Asp Ile Ile		
16160	16165	16170
Asn Tyr Ile Val Glu Arg Arg Glu Thr Ser Arg Leu Val Trp Thr		
16175	16180	16185
Val Val Asp Ala Asn Val Gln Thr Leu Ser Cys Lys Val Thr Lys		
16190	16195	16200
Leu Leu Glu Gly Asn Glu Tyr Thr Phe Arg Ile Met Ala Val Asn		
16205	16210	16215
Lys Tyr Gly Val Gly Glu Pro Leu Glu Ser Glu Pro Val Val Ala		
16220	16225	16230
Lys Asn Pro Phe Val Val Pro Asp Ala Pro Lys Ala Pro Glu Val		
16235	16240	16245

Thr	Thr	Val	Thr	Lys	Asp	Ser	Met	Ile	Val	Val	Trp	Glu	Arg	Pro
16250						16255						16260		
Ala	Ser	Asp	Gly	Gly	Ser	Glu	Ile	Leu	Gly	Tyr	Val	Leu	Glu	Lys
16265						16270						16275		
Arg	Asp	Lys	Glu	Gly	Ile	Arg	Trp	Thr	Arg	Cys	His	Lys	Arg	Leu
16280						16285						16290		
Ile	Gly	Glu	Leu	Arg	Leu	Arg	Val	Thr	Gly	Leu	Ile	Glu	Asn	His
16295						16300						16305		
Asp	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Ala	Ala	Gly	Leu	Ser
16310						16315						16320		
Glu	Pro	Ser	Pro	Pro	Ser	Ala	Tyr	Gln	Lys	Ala	Cys	Asp	Pro	Ile
16325						16330						16335		
Tyr	Lys	Pro	Gly	Pro	Pro	Asn	Asn	Pro	Lys	Val	Ile	Asp	Ile	Thr
16340						16345						16350		
Arg	Ser	Ser	Val	Phe	Leu	Ser	Trp	Ser	Lys	Pro	Ile	Tyr	Asp	Gly
16355						16360						16365		
Gly	Cys	Glu	Ile	Gln	Gly	Tyr	Ile	Val	Glu	Lys	Cys	Asp	Val	Asn
16370						16375						16380		
Val	Gly	Glu	Trp	Thr	Met	Cys	Thr	Pro	Pro	Thr	Gly	Ile	Asn	Lys
16385						16390						16395		
Thr	Asn	Ile	Glu	Val	Glu	Lys	Leu	Leu	Glu	Lys	His	Glu	Tyr	Asn
16400						16405						16410		
Phe	Arg	Ile	Cys	Ala	Ile	Asn	Lys	Ala	Gly	Val	Gly	Glu	His	Ala
16415						16420						16425		
Asp	Val	Pro	Gly	Pro	Ile	Ile	Val	Glu	Glu	Lys	Leu	Glu	Ala	Pro
16430						16435						16440		
Asp	Ile	Asp	Leu	Asp	Leu	Glu	Leu	Arg	Lys	Ile	Ile	Asn	Ile	Arg
16445						16450						16455		
Ala	Gly	Gly	Ser	Leu	Arg	Leu	Phe	Val	Pro	Ile	Lys	Gly	Arg	Pro
16460						16465						16470		

Thr Pro Glu Val Lys Trp Gly Lys Val Asp Gly Glu Ile Arg Asp
16475 16480 16485

Ala Ala Ile Ile Asp Val Thr Ser Ser Phe Thr Ser Leu Val Leu
16490 16495 16500

Asp Asn Val Asn Arg Tyr Asp Ser Gly Lys Tyr Thr Leu Thr Leu
16505 16510 16515

Glu Asn Ser Ser Gly Thr Lys Ser Ala Phe Val Thr Val Arg Val
16520 16525 16530

Leu Asp Thr Pro Ser Pro Pro Val Asn Leu Lys Val Thr Glu Ile
16535 16540 16545

Thr Lys Asp Ser Val Ser Ile Thr Trp Glu Pro Pro Leu Leu Asp
16550 16555 16560

Gly Gly Ser Lys Ile Lys Asn Tyr Ile Val Glu Lys Arg Glu Ala
16565 16570 16575

Thr Arg Lys Ser Tyr Ala Ala Val Val Thr Asn Cys His Lys Asn
16580 16585 16590

Ser Trp Lys Ile Asp Gln Leu Gln Glu Gly Cys Ser Tyr Tyr Phe
16595 16600 16605

Arg Val Thr Ala Glu Asn Glu Tyr Gly Ile Gly Leu Pro Ala Gln
16610 16615 16620

Thr Ala Asp Pro Ile Lys Val Ala Glu Val Pro Gln Pro Pro Gly
16625 16630 16635

Lys Ile Thr Val Asp Asp Val Thr Arg Asn Ser Val Ser Leu Ser
16640 16645 16650

Trp Thr Lys Pro Glu His Asp Gly Gly Ser Lys Ile Ile Gln Tyr
16655 16660 16665

Ile Val Glu Met Gln Ala Lys His Ser Glu Lys Trp Ser Glu Cys
16670 16675 16680

Ala Arg Val Lys Ser Leu Gln Ala Val Ile Thr Asn Leu Thr Gln

16685

16690

16695

Gly Glu Glu Tyr Leu Phe Arg Val Val Ala Val Asn Glu Lys Gly
16700 16705 16710

Arg Ser Asp Pro Arg Ser Leu Ala Val Pro Ile Val Ala Lys Asp
16715 16720 16725

Leu Val Ile Glu Pro Asp Val Lys Pro Ala Phe Ser Ser Tyr Ser
16730 16735 16740

Val Gln Val Gly Gln Asp Leu Lys Ile Glu Val Pro Ile Ser Gly
16745 16750 16755

Arg Pro Lys Pro Thr Ile Thr Trp Thr Lys Asp Gly Leu Pro Leu
16760 16765 16770

Lys Gln Thr Thr Arg Ile Asn Val Thr Asp Ser Leu Asp Leu Thr
16775 16780 16785

Thr Leu Ser Ile Lys Glu Thr His Lys Asp Asp Gly Gly Gln Tyr
16790 16795 16800

Gly Ile Thr Val Ala Asn Val Val Gly Gln Lys Thr Ala Ser Ile
16805 16810 16815

Glu Ile Val Thr Leu Asp Lys Pro Asp Pro Pro Lys Gly Pro Val
16820 16825 16830

Lys Phe Asp Asp Val Ser Ala Glu Ser Ile Thr Leu Ser Trp Asn
16835 16840 16845

Pro Pro Leu Tyr Thr Gly Gly Cys Gln Ile Thr Asn Tyr Ile Val
16850 16855 16860

Gln Lys Arg Asp Thr Thr Thr Val Trp Asp Val Val Ser Ala
16865 16870 16875

Thr Val Ala Arg Thr Thr Leu Lys Val Thr Lys Leu Lys Thr Gly
16880 16885 16890

Thr Glu Tyr Gln Phe Arg Ile Phe Ala Glu Asn Arg Tyr Gly Gln
16895 16900 16905

Ser Phe Ala Leu Glu Ser Asp Pro Ile Val Ala Gln Tyr Pro Tyr
 16910 16915 16920

Lys Glu Pro Gly Pro Pro Gly Thr Pro Phe Ala Thr Ala Ile Ser
 16925 16930 16935

Lys Asp Ser Met Val Ile Gln Trp His Glu Pro Val Asn Asn Gly
 16940 16945 16950

Gly Ser Pro Val Ile Gly Tyr His Leu Glu Arg Lys Glu Arg Asn
 16955 16960 16965

Ser Ile Leu Trp Thr Lys Val Asn Lys Thr Ile Ile His Asp Thr
 16970 16975 16980

Gln Phe Lys Ala Gln Asn Leu Glu Glu Gly Ile Glu Tyr Glu Phe
 16985 16990 16995

Arg Val Tyr Ala Glu Asn Ile Val Gly Val Gly Lys Ala Ser Lys
 17000 17005 17010

Asn Ser Glu Cys Tyr Val Ala Arg Asp Pro Cys Asp Pro Pro Gly
 17015 17020 17025

Thr Pro Glu Pro Ile Met Val Lys Arg Asn Glu Ile Thr Leu Gln
 17030 17035 17040

Trp Thr Lys Pro Val Tyr Asp Gly Gly Ser Met Ile Thr Gly Tyr
 17045 17050 17055

Ile Val Glu Lys Arg Asp Leu Pro Asp Gly Arg Trp Met Lys Ala
 17060 17065 17070

Ser Phe Thr Asn Val Ile Glu Thr Gln Phe Thr Val Ser Gly Leu
 17075 17080 17085

Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala
 17090 17095 17100

Ala Gly Ala Ile Ser Lys Pro Ser Asp Ser Thr Gly Pro Ile Thr
 17105 17110 17115

Ala Lys Asp Glu Val Glu Leu Pro Arg Ile Ser Met Asp Pro Lys
 17120 17125 17130

Phe	Arg	Asp	Thr	Ile	Val	Val	Asn	Ala	Gly	Glu	Thr	Phe	Arg	Leu
17135					17140							17145		
Glu	Ala	Asp	Val	His	Gly	Lys	Pro	Leu	Pro	Thr	Ile	Glu	Trp	Leu
17150					17155						17160			
Arg	Gly	Asp	Lys	Glu	Ile	Glu	Glu	Ser	Ala	Arg	Cys	Glu	Ile	Lys
17165					17170						17175			
Asn	Thr	Asp	Phe	Lys	Ala	Leu	Leu	Ile	Val	Lys	Asp	Ala	Ile	Arg
17180					17185						17190			
Ile	Asp	Gly	Gly	Gln	Tyr	Ile	Leu	Arg	Ala	Ser	Asn	Val	Ala	Gly
17195					17200						17205			
Ser	Lys	Ser	Phe	Pro	Val	Asn	Val	Lys	Val	Leu	Asp	Arg	Pro	Gly
17210					17215						17220			
Pro	Pro	Glu	Gly	Pro	Val	Gln	Val	Thr	Gly	Val	Thr	Ser	Glu	Lys
17225					17230						17235			
Cys	Ser	Leu	Thr	Trp	Ser	Pro	Pro	Leu	Gln	Asp	Gly	Gly	Ser	Asp
17240					17245						17250			
Ile	Ser	His	Tyr	Val	Val	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Leu	Ala
17255					17260						17265			
Trp	Thr	Val	Val	Ala	Ser	Glu	Val	Val	Thr	Asn	Ser	Leu	Lys	Val
17270					17275						17280			
Thr	Lys	Leu	Leu	Glu	Gly	Asn	Glu	Tyr	Val	Phe	Arg	Ile	Met	Ala
17285					17290						17295			
Val	Asn	Lys	Tyr	Gly	Val	Gly	Glu	Pro	Leu	Glu	Ser	Ala	Pro	Val
17300					17305						17310			
Leu	Met	Lys	Asn	Pro	Phe	Val	Leu	Pro	Gly	Pro	Pro	Lys	Ser	Leu
17315					17320						17325			
Glu	Val	Thr	Asn	Ile	Ala	Lys	Asp	Ser	Met	Thr	Val	Cys	Trp	Asn
17330					17335						17340			
Arg	Pro	Asp	Ser	Asp	Gly	Gly	Ser	Glu	Ile	Ile	Gly	Tyr	Ile	Val

17345

17350

17355

Glu Lys Arg Asp Arg Ser Gly Ile Arg Trp Ile Lys Cys Asn Lys
17360 17365 17370

Arg Arg Ile Thr Asp Leu Arg Leu Arg Val Thr Gly Leu Thr Glu
17375 17380 17385

Asp His Glu Tyr Glu Phe Arg Val Ser Ala Glu Asn Ala Ala Gly
17390 17395 17400

Val Gly Glu Pro Ser Pro Ala Thr Val Tyr Tyr Lys Ala Cys Asp
17405 17410 17415

Pro Val Phe Lys Pro Gly Pro Pro Thr Asn Ala His Ile Val Asp
17420 17425 17430

Thr Thr Lys Asn Ser Ile Thr Leu Ala Trp Gly Lys Pro Ile Tyr
17435 17440 17445

Asp Gly Gly Ser Glu Ile Leu Gly Tyr Val Val Glu Ile Cys Lys
17450 17455 17460

Ala Asp Glu Glu Glu Trp Gln Ile Val Thr Pro Gln Thr Gly Leu
17465 17470 17475

Arg Val Thr Arg Phe Glu Ile Ser Lys Leu Thr Glu His Gln Glu
17480 17485 17490

Tyr Lys Ile Arg Val Cys Ala Leu Asn Lys Val Gly Leu Gly Glu
17495 17500 17505

Ala Thr Ser Val Pro Gly Thr Val Lys Pro Glu Asp Lys Leu Glu
17510 17515 17520

Ala Pro Glu Leu Asp Leu Asp Ser Glu Leu Arg Lys Gly Ile Val
17525 17530 17535

Val Arg Ala Gly Gly Ser Ala Arg Ile His Ile Pro Phe Lys Gly
17540 17545 17550

Arg Pro Met Pro Glu Ile Thr Trp Ser Arg Glu Glu Gly Glu Phe
17555 17560 17565

Thr Asp Lys Val Gln Ile Glu Lys Gly Val Asn Tyr Thr Gln Leu
 17570 17575 17580

Ser Ile Asp Asn Cys Asp Arg Asn Asp Ala Gly Lys Tyr Ile Leu
 17585 17590 17595

Lys Leu Glu Asn Ser Ser Gly Ser Lys Ser Ala Phe Val Thr Val
 17600 17605 17610

Lys Val Leu Asp Thr Pro Gly Pro Pro Gln Asn Leu Ala Val Lys
 17615 17620 17625

Glu Val Arg Lys Asp Ser Ala Phe Leu Val Trp Glu Pro Pro Ile
 17630 17635 17640

Ile Asp Gly Gly Ala Lys Val Lys Asn Tyr Val Ile Asp Lys Arg
 17645 17650 17655

Glu Ser Thr Arg Lys Ala Tyr Ala Asn Val Ser Ser Lys Cys Ser
 17660 17665 17670

Lys Thr Ser Phe Lys Val Glu Asn Leu Thr Glu Gly Ala Ile Tyr
 17675 17680 17685

Tyr Phe Arg Val Met Ala Glu Asn Glu Phe Gly Val Gly Val Pro
 17690 17695 17700

Val Glu Thr Val Asp Ala Val Lys Ala Ala Glu Pro Pro Ser Pro
 17705 17710 17715

Pro Gly Lys Val Thr Leu Thr Asp Val Ser Gln Thr Ser Ala Ser
 17720 17725 17730

Leu Met Trp Glu Lys Pro Glu His Asp Gly Gly Ser Arg Val Leu
 17735 17740 17745

Gly Tyr Val Val Glu Met Gln Pro Lys Gly Thr Glu Lys Trp Ser
 17750 17755 17760

Ile Val Ala Glu Ser Lys Val Cys Asn Ala Val Val Thr Gly Leu
 17765 17770 17775

Ser Ser Gly Gln Glu Tyr Gln Phe Arg Val Lys Ala Tyr Asn Glu
 17780 17785 17790

Lys Gly Lys Ser Asp Pro Arg Val Leu Gly Val Pro Val Ile Ala
 17795 17800 17805

Lys Asp Leu Thr Ile Gln Pro Ser Leu Lys Leu Pro Phe Asn Thr
 17810 17815 17820

Tyr Ser Ile Gln Ala Gly Glu Asp Leu Lys Ile Glu Ile Pro Val
 17825 17830 17835

Ile Gly Arg Pro Arg Pro Asn Ile Ser Trp Val Lys Asp Gly Glu
 17840 17845 17850

Pro Leu Lys Gln Thr Thr Arg Val Asn Val Glu Glu Thr Ala Thr
 17855 17860 17865

Ser Thr Val Leu His Ile Lys Glu Gly Asn Lys Asp Asp Phe Gly
 17870 17875 17880

Lys Tyr Thr Val Thr Ala Thr Asn Ser Ala Gly Thr Ala Thr Glu
 17885 17890 17895

Asn Leu Ser Val Ile Val Leu Glu Lys Pro Gly Pro Pro Val Gly
 17900 17905 17910

Pro Val Arg Phe Asp Glu Val Ser Ala Asp Phe Val Val Ile Ser
 17915 17920 17925

Trp Glu Pro Pro Ala Tyr Thr Gly Gly Cys Gln Ile Ser Asn Tyr
 17930 17935 17940

Ile Val Glu Lys Arg Asp Thr Thr Thr Thr Thr Trp His Met Val
 17945 17950 17955

Ser Ala Thr Val Ala Arg Thr Thr Ile Lys Ile Thr Lys Leu Lys
 17960 17965 17970

Thr Gly Thr Glu Tyr Gln Phe Arg Ile Phe Ala Glu Asn Arg Tyr
 17975 17980 17985

Gly Lys Ser Ala Pro Leu Asp Ser Lys Ala Val Ile Val Gln Tyr
 17990 17995 18000

Pro Phe Lys Glu Pro Gly Pro Pro Gly Thr Pro Phe Val Thr Ser

18005	18010	18015
Ile Ser Lys Asp Gln Met Leu Val Gln Trp His Glu Pro Val Asn		
18020	18025	18030
Asp Gly Gly Thr Lys Ile Ile Gly Tyr His Leu Glu Gln Lys Glu		
18035	18040	18045
Lys Asn Ser Ile Leu Trp Val Lys Leu Asn Lys Thr Pro Ile Gln		
18050	18055	18060
Asp Thr Lys Phe Lys Thr Thr Gly Leu Asp Glu Gly Leu Glu Tyr		
18065	18070	18075
Glu Phe Lys Val Ser Ala Glu Asn Ile Val Gly Ile Gly Lys Pro		
18080	18085	18090
Ser Lys Val Ser Glu Cys Phe Val Ala Arg Asp Pro Cys Asp Pro		
18095	18100	18105
Pro Gly Arg Pro Glu Ala Ile Val Ile Thr Arg Asn Asn Val Thr		
18110	18115	18120
Leu Lys Trp Lys Lys Pro Ala Tyr Asp Gly Gly Ser Lys Ile Thr		
18125	18130	18135
Gly Tyr Ile Val Glu Lys Lys Asp Leu Pro Asp Gly Arg Trp Met		
18140	18145	18150
Lys Ala Ser Phe Thr Asn Val Leu Glu Thr Glu Phe Thr Val Ser		
18155	18160	18165
Gly Leu Val Glu Asp Gln Arg Tyr Glu Phe Arg Val Ile Ala Arg		
18170	18175	18180
Asn Ala Ala Gly Asn Phe Ser Glu Pro Ser Asp Ser Ser Gly Ala		
18185	18190	18195
Ile Thr Ala Arg Asp Glu Ile Asp Ala Pro Asn Ala Ser Leu Asp		
18200	18205	18210
Pro Lys Tyr Lys Asp Val Ile Val Val His Ala Gly Glu Thr Phe		
18215	18220	18225

Val Leu Glu Ala Asp Ile Arg Gly Lys Pro Ile Pro Asp Val Val
18230 18235 18240

Trp Ser Lys Asp Gly Lys Glu Leu Glu Glu Thr Ala Ala Arg Met
18245 18250 18255

Glu Ile Lys Ser Thr Ile Gln Lys Thr Thr Leu Val Val Lys Asp
18260 18265 18270

Cys Ile Arg Thr Asp Gly Gly Gln Tyr Ile Leu Lys Leu Ser Asn
18275 18280 18285

Val Gly Gly Thr Lys Ser Ile Pro Ile Thr Val Lys Val Leu Asp
18290 18295 18300

Arg Pro Gly Ser Pro Glu Gly Pro Leu Lys Val Thr Gly Val Thr
18305 18310 18315

Ala Glu Lys Cys Tyr Leu Ala Trp Asn Pro Pro Leu Gln Asp Gly
18320 18325 18330

Gly Ala Asn Ile Ser His Tyr Ile Ile Glu Lys Arg Glu Thr Ser
18335 18340 18345

Arg Leu Ser Trp Thr Gln Val Ser Thr Glu Val Gln Ala Leu Asn
18350 18355 18360

Tyr Lys Val Thr Lys Leu Leu Pro Gly Asn Glu Tyr Ile Phe Arg
18365 18370 18375

Val Met Ala Val Asn Lys Tyr Gly Ile Gly Glu Pro Leu Glu Ser
18380 18385 18390

Gly Pro Val Thr Ala Cys Asn Pro Tyr Lys Pro Pro Gly Pro Pro
18395 18400 18405

Ser Thr Pro Glu Val Ser Ala Ile Thr Lys Asp Ser Met Val Val
18410 18415 18420

Thr Trp Ala Arg Pro Val Asp Asp Gly Gly Thr Glu Ile Glu Gly
18425 18430 18435

Tyr Ile Leu Glu Lys Arg Asp Lys Glu Gly Val Arg Trp Thr Lys
18440 18445 18450

Cys	Asn	Lys	Lys	Thr	Leu	Thr	Asp	Leu	Arg	Leu	Arg	Val	Thr	Gly
18455					18460						18465			
Leu	Thr	Glu	Gly	His	Ser	Tyr	Glu	Phe	Arg	Val	Ala	Ala	Glu	Asn
18470					18475						18480			
Ala	Ala	Gly	Val	Gly	Glu	Pro	Ser	Glu	Pro	Ser	Val	Phe	Tyr	Arg
18485					18490						18495			
Ala	Cys	Asp	Ala	Leu	Tyr	Pro	Pro	Gly	Pro	Pro	Ser	Asn	Pro	Lys
18500					18505						18510			
Val	Thr	Asp	Thr	Ser	Arg	Ser	Ser	Val	Ser	Leu	Ala	Trp	Ser	Lys
18515					18520						18525			
Pro	Ile	Tyr	Asp	Gly	Gly	Ala	Pro	Val	Lys	Gly	Tyr	Val	Val	Glu
18530					18535						18540			
Val	Lys	Glu	Ala	Ala	Ala	Asp	Glu	Trp	Thr	Thr	Cys	Thr	Pro	Pro
18545					18550						18555			
Thr	Gly	Leu	Gln	Gly	Lys	Gln	Phe	Thr	Val	Thr	Lys	Leu	Lys	Glu
18560					18565						18570			
Asn	Thr	Glu	Tyr	Asn	Phe	Arg	Ile	Cys	Ala	Ile	Asn	Ser	Glu	Gly
18575					18580						18585			
Val	Gly	Glu	Pro	Ala	Thr	Leu	Pro	Gly	Ser	Val	Val	Ala	Gln	Glu
18590					18595						18600			
Arg	Ile	Glu	Pro	Pro	Glu	Ile	Glu	Leu	Asp	Ala	Asp	Leu	Arg	Lys
18605					18610						18615			
Val	Val	Val	Leu	Arg	Ala	Ser	Ala	Thr	Leu	Arg	Leu	Phe	Val	Thr
18620					18625						18630			
Ile	Lys	Gly	Arg	Pro	Glu	Pro	Glu	Val	Lys	Trp	Glu	Lys	Ala	Glu
18635					18640						18645			
Gly	Ile	Leu	Thr	Asp	Arg	Ala	Gln	Ile	Glu	Val	Thr	Ser	Ser	Phe
18650					18655						18660			
Thr	Met	Leu	Val	Ile	Asp	Asn	Val	Thr	Arg	Phe	Asp	Ser	Gly	Arg

18665	18670	18675
Tyr Asn Leu Thr Leu Glu Asn Asn Ser Gly Ser Lys Thr Ala Phe		
18680	18685	18690
Val Asn Val Arg Val Leu Asp Ser Pro Ser Ala Pro Val Asn Leu		
18695	18700	18705
Thr Ile Arg Glu Val Lys Lys Asp Ser Val Thr Leu Ser Trp Glu		
18710	18715	18720
Pro Pro Leu Ile Asp Gly Gly Ala Lys Ile Thr Asn Tyr Ile Val		
18725	18730	18735
Glu Lys Arg Glu Thr Thr Arg Lys Ala Tyr Ala Thr Ile Thr Asn		
18740	18745	18750
Asn Cys Thr Lys Thr Thr Phe Arg Ile Glu Asn Leu Gln Glu Gly		
18755	18760	18765
Cys Ser Tyr Tyr Phe Arg Val Leu Ala Ser Asn Glu Tyr Gly Ile		
18770	18775	18780
Gly Leu Pro Ala Glu Thr Thr Glu Pro Val Lys Val Ser Glu Pro		
18785	18790	18795
Pro Leu Pro Pro Gly Arg Val Thr Leu Val Asp Val Thr Arg Asn		
18800	18805	18810
Thr Ala Thr Ile Lys Trp Glu Lys Pro Glu Ser Asp Gly Gly Ser		
18815	18820	18825
Lys Ile Thr Gly Tyr Val Val Glu Met Gln Thr Lys Gly Ser Glu		
18830	18835	18840
Lys Trp Ser Thr Cys Thr Gln Val Lys Thr Leu Glu Ala Thr Ile		
18845	18850	18855
Ser Gly Leu Thr Ala Gly Glu Glu Tyr Val Phe Arg Val Ala Ala		
18860	18865	18870
Val Asn Glu Lys Gly Arg Ser Asp Pro Arg Gln Leu Gly Val Pro		
18875	18880	18885

Val Ile Ala Arg Asp Ile Glu Ile Lys Pro Ser Val Glu Leu Pro
18890 18895 18900

Phe His Thr Phe Asn Val Lys Ala Arg Glu Gln Leu Lys Ile Asp
18905 18910 18915

Val Pro Phe Lys Gly Arg Pro Gln Ala Thr Val Asn Trp Arg Lys
18920 18925 18930

Asp Gly Gln Thr Leu Lys Glu Thr Thr Arg Val Asn Val Ser Ser
18935 18940 18945

Ser Lys Thr Val Thr Ser Leu Ser Ile Lys Glu Ala Ser Lys Glu
18950 18955 18960

Asp Val Gly Thr Tyr Glu Leu Cys Val Ser Asn Ser Ala Gly Ser
18965 18970 18975

Ile Thr Val Pro Ile Thr Ile Ile Val Leu Asp Arg Pro Gly Pro
18980 18985 18990

Pro Gly Pro Ile Arg Ile Asp Glu Val Ser Cys Asp Ser Ile Thr
18995 19000 19005

Ile Ser Trp Asn Pro Pro Glu Tyr Asp Gly Gly Cys Gln Ile Ser
19010 19015 19020

Asn Tyr Ile Val Glu Lys Lys Glu Thr Thr Ser Thr Thr Trp His
19025 19030 19035

Ile Val Ser Gln Ala Val Ala Arg Thr Ser Ile Lys Ile Val Arg
19040 19045 19050

Leu Thr Thr Gly Ser Glu Tyr Gln Phe Arg Val Cys Ala Glu Asn
19055 19060 19065

Arg Tyr Gly Lys Ser Ser Tyr Ser Glu Ser Ser Ala Val Val Ala
19070 19075 19080

Glu Tyr Pro Phe Ser Pro Pro Gly Pro Pro Gly Thr Pro Lys Val
19085 19090 19095

Val His Ala Thr Lys Ser Thr Met Leu Val Thr Trp Gln Val Pro
19100 19105 19110

Val Asn Asp Gly Gly Ser Arg Val Ile Gly Tyr His Leu Glu Tyr
19115 19120 19125

Lys Glu Arg Ser Ser Ile Leu Trp Ser Lys Ala Asn Lys Ile Leu
19130 19135 19140

Ile Ala Asp Thr Gln Val Lys Val Ser Gly Leu Asp Glu Gly Leu
19145 19150 19155

Met Tyr Glu Tyr Arg Val Tyr Ala Glu Asn Ile Ala Gly Ile Gly
19160 19165 19170

Lys Cys Ser Lys Ser Cys Glu Pro Val Pro Ala Arg Asp Pro Cys
19175 19180 19185

Asp Pro Pro Gly Gln Pro Glu Val Thr Asn Ile Thr Arg Lys Ser
19190 19195 19200

Val Ser Leu Lys Trp Ser Lys Pro His Tyr Asp Gly Gly Ala Lys
19205 19210 19215

Ile Thr Gly Tyr Ile Val Glu Arg Arg Glu Leu Pro Asp Gly Arg
19220 19225 19230

Trp Leu Lys Cys Asn Tyr Thr Asn Ile Gln Glu Thr Tyr Phe Glu
19235 19240 19245

Val Thr Glu Leu Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Phe
19250 19255 19260

Ala Arg Asn Ala Ala Asp Ser Val Ser Glu Pro Ser Glu Ser Thr
19265 19270 19275

Gly Pro Ile Ile Val Lys Asp Asp Val Glu Pro Pro Arg Val Met
19280 19285 19290

Met Asp Val Lys Phe Arg Asp Val Ile Val Val Lys Ala Gly Glu
19295 19300 19305

Val Leu Lys Ile Asn Ala Asp Ile Ala Gly Arg Pro Leu Pro Val
19310 19315 19320

Ile Ser Trp Ala Lys Asp Gly Ile Glu Ile Glu Glu Arg Ala Arg

19325

19330

19335

Thr Glu Ile Ile Ser Thr Asp Asn His Thr Leu Leu Thr Val Lys
19340 19345 19350

Asp Cys Ile Arg Arg Asp Thr Gly Gln Tyr Val Leu Thr Leu Lys
19355 19360 19365

Asn Val Ala Gly Thr Arg Ser Val Ala Val Asn Cys Lys Val Leu
19370 19375 19380

Asp Lys Pro Gly Pro Pro Ala Gly Pro Leu Glu Ile Asn Gly Leu
19385 19390 19395

Thr Ala Glu Lys Cys Ser Leu Ser Trp Gly Arg Pro Gln Glu Asp
19400 19405 19410

Gly Gly Ala Asp Ile Asp Tyr Tyr His Arg Lys Lys Arg Glu Thr
19415 19420 19425

Ser His Leu Ala Trp Thr Ile Cys Glu Gly Glu Leu Gln Met Thr
19430 19435 19440

Ser Cys Lys Val Thr Lys Leu Leu Lys Gly Asn Glu Tyr Ile Phe
19445 19450 19455

Arg Val Thr Gly Val Asn Lys Tyr Gly Val Gly Glu Pro Leu Glu
19460 19465 19470

Ser Val Ala Ile Lys Ala Leu Asp Pro Phe Thr Val Pro Ser Pro
19475 19480 19485

Pro Thr Ser Leu Glu Ile Thr Ser Val Thr Lys Glu Ser Met Thr
19490 19495 19500

Leu Cys Trp Ser Arg Pro Glu Ser Asp Gly Gly Ser Glu Ile Ser
19505 19510 19515

Gly Tyr Ile Ile Glu Arg Arg Glu Lys Asn Ser Leu Arg Trp Val
19520 19525 19530

Arg Val Asn Lys Lys Pro Val Tyr Asp Leu Arg Val Lys Ser Thr
19535 19540 19545

Gly Leu Arg Glu Gly Cys Glu Tyr Glu Tyr Arg Val Tyr Ala Glu
19550 19555 19560

Asn Ala Ala Gly Leu Ser Leu Pro Ser Glu Thr Ser Pro Leu Ile
19565 19570 19575

Arg Ala Glu Asp Pro Val Phe Leu Pro Ser Pro Pro Ser Lys Pro
19580 19585 19590

Lys Ile Val Asp Ser Gly Lys Thr Thr Ile Thr Ile Ala Trp Val
19595 19600 19605

Lys Pro Leu Phe Asp Gly Gly Ala Pro Ile Thr Gly Tyr Thr Val
19610 19615 19620

Glu Tyr Lys Lys Ser Asp Asp Thr Asp Trp Lys Thr Ser Ile Gln
19625 19630 19635

Ser Leu Arg Gly Thr Glu Tyr Thr Ile Ser Gly Leu Thr Thr Gly
19640 19645 19650

Ala Glu Tyr Val Phe Arg Val Lys Ser Val Asn Lys Val Gly Ala
19655 19660 19665

Ser Asp Pro Ser Asp Ser Ser Asp Pro Gln Ile Ala Lys Glu Arg
19670 19675 19680

Glu Glu Glu Pro Leu Phe Asp Ile Asp Ser Glu Met Arg Lys Thr
19685 19690 19695

Leu Ile Val Lys Ala Gly Ala Ser Phe Thr Met Thr Val Pro Phe
19700 19705 19710

Arg Gly Arg Pro Val Pro Asn Val Leu Trp Ser Lys Pro Asp Thr
19715 19720 19725

Asp Leu Arg Thr Arg Ala Tyr Val Asp Thr Thr Asp Ser Arg Thr
19730 19735 19740

Ser Leu Thr Ile Glu Asn Ala Asn Arg Asn Asp Ser Gly Lys Tyr
19745 19750 19755

Thr Leu Thr Ile Gln Asn Val Leu Ser Ala Ala Ser Leu Thr Leu
19760 19765 19770

Val	Val	Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Thr	Asn	Ile	Thr
19775				19780							19785			
Val	Gln	Asp	Val	Thr	Lys	Glu	Ser	Ala	Val	Leu	Ser	Trp	Asp	Val
19790				19795							19800			
Pro	Glu	Asn	Asp	Gly	Gly	Ala	Pro	Val	Lys	Asn	Tyr	His	Ile	Glu
19805					19810						19815			
Lys	Arg	Glu	Ala	Ser	Lys	Lys	Ala	Trp	Val	Ser	Val	Thr	Asn	Asn
19820					19825						19830			
Cys	Asn	Arg	Leu	Ser	Tyr	Lys	Val	Thr	Asn	Leu	Gln	Glu	Gly	Ala
19835					19840						19845			
Ile	Tyr	Tyr	Phe	Arg	Val	Ser	Gly	Glu	Asn	Glu	Phe	Gly	Val	Gly
19850					19855						19860			
Ile	Pro	Ala	Glu	Thr	Lys	Glu	Gly	Val	Lys	Ile	Thr	Glu	Lys	Pro
19865					19870						19875			
Ser	Pro	Pro	Glu	Lys	Leu	Gly	Val	Thr	Ser	Ile	Ser	Lys	Asp	Ser
19880					19885						19890			
Val	Ser	Leu	Thr	Trp	Leu	Lys	Pro	Glu	His	Asp	Gly	Gly	Ser	Arg
19895					19900						19905			
Ile	Val	His	Tyr	Val	Val	Glu	Ala	Leu	Glu	Lys	Gly	Gln	Lys	Asn
19910					19915						19920			
Trp	Val	Lys	Cys	Ala	Val	Ala	Lys	Ser	Thr	His	His	Val	Val	Ser
19925					19930						19935			
Gly	Leu	Arg	Glu	Asn	Ser	Glu	Tyr	Phe	Phe	Arg	Val	Phe	Ala	Glu
19940					19945						19950			
Asn	Gln	Ala	Gly	Leu	Ser	Asp	Pro	Arg	Glu	Leu	Leu	Leu	Pro	Val
19955					19960						19965			
Leu	Ile	Lys	Glu	Gln	Leu	Glu	Pro	Pro	Glu	Ile	Asp	Met	Lys	Asn
19970					19975						19980			
Phe	Pro	Ser	His	Thr	Val	Tyr	Val	Arg	Ala	Gly	Ser	Asn	Leu	Lys

19985

19990

19995

Val Asp Ile Pro Ile Ser Gly Lys Pro Leu Pro Lys Val Thr Leu
20000 20005 20010

Ser Arg Asp Gly Val Pro Leu Lys Ala Thr Met Arg Phe Asn Thr
20015 20020 20025

Glu Ile Thr Ala Glu Asn Leu Thr Ile Asn Leu Lys Glu Ser Val
20030 20035 20040

Thr Ala Asp Ala Gly Arg Tyr Glu Ile Thr Ala Ala Asn Ser Ser
20045 20050 20055

Gly Thr Thr Lys Ala Phe Ile Asn Ile Val Val Leu Asp Arg Pro
20060 20065 20070

Gly Pro Pro Thr Gly Pro Val Val Ile Ser Asp Ile Thr Glu Glu
20075 20080 20085

Ser Val Thr Leu Lys Trp Glu Pro Pro Lys Tyr Asp Gly Gly Ser
20090 20095 20100

Gln Val Thr Asn Tyr Ile Leu Leu Lys Arg Glu Thr Ser Thr Ala
20105 20110 20115

Val Trp Thr Glu Val Ser Ala Thr Val Ala Arg Thr Met Met Lys
20120 20125 20130

Val Met Lys Leu Thr Thr Gly Glu Glu Tyr Gln Phe Arg Ile Lys
20135 20140 20145

Ala Glu Asn Arg Phe Gly Ile Ser Asp His Ile Asp Ser Ala Cys
20150 20155 20160

Val Thr Val Lys Leu Pro Tyr Thr Thr Pro Gly Pro Pro Ser Thr
20165 20170 20175

Pro Trp Val Thr Asn Val Thr Arg Glu Ser Ile Thr Val Gly Trp
20180 20185 20190

His Glu Pro Val Ser Asn Gly Gly Ser Ala Val Val Gly Tyr His
20195 20200 20205

Leu Glu Met Lys Asp Arg Asn Ser Ile Leu Trp Gln Lys Ala Asn
20210 20215 20220

Lys Leu Val Ile Arg Thr Thr His Phe Lys Val Thr Thr Ile Ser
20225 20230 20235

Ala Gly Leu Ile Tyr Glu Phe Arg Val Tyr Ala Glu Asn Ala Ala
20240 20245 20250

Gly Val Gly Lys Pro Ser His Pro Ser Glu Pro Val Leu Ala Ile
20255 20260 20265

Asp Ala Cys Glu Pro Pro Arg Asn Val Arg Ile Thr Asp Ile Ser
20270 20275 20280

Lys Asn Ser Val Ser Leu Ser Trp Gln Gln Pro Ala Phe Asp Gly
20285 20290 20295

Gly Ser Lys Ile Thr Gly Tyr Ile Val Glu Arg Arg Asp Leu Pro
20300 20305 20310

Asp Gly Arg Trp Thr Lys Ala Ser Phe Thr Asn Val Thr Glu Thr
20315 20320 20325

Gln Phe Thr Ile Ser Gly Leu Thr Gln Asn Ser Gln Tyr Glu Phe
20330 20335 20340

Arg Val Phe Ala Arg Asn Ala Val Gly Ser Ile Ser Asn Pro Ser
20345 20350 20355

Glu Val Val Gly Pro Ile Thr Cys Ile Asp Ser Tyr Gly Gly Pro
20360 20365 20370

Val Ile Asp Leu Pro Leu Glu Tyr Thr Glu Val Val Lys Tyr Arg
20375 20380 20385

Ala Gly Thr Ser Val Lys Leu Arg Ala Gly Ile Ser Gly Lys Pro
20390 20395 20400

Ala Pro Thr Ile Glu Trp Tyr Lys Asp Asp Lys Glu Leu Gln Thr
20405 20410 20415

Asn Ala Leu Val Cys Val Glu Asn Thr Thr Asp Leu Ala Ser Ile
20420 20425 20430

Leu Ile Lys Asp Ala Asp Arg Leu Asn Ser Gly Cys Tyr Glu Leu
20435 20440 20445

Lys Leu Arg Asn Ala Met Ala Ser Ala Ser Ala Thr Ile Arg Val
20450 20455 20460

Gln Ile Leu Asp Lys Pro Gly Pro Pro Gly Gly Pro Ile Glu Phe
20465 20470 20475

Lys Thr Val Thr Ala Glu Lys Ile Thr Leu Leu Trp Arg Pro Pro
20480 20485 20490

Ala Asp Asp Gly Gly Ala Lys Ile Thr His Tyr Ile Val Glu Lys
20495 20500 20505

Arg Glu Thr Ser Arg Val Val Trp Ser Met Val Ser Glu His Leu
20510 20515 20520

Glu Glu Cys Ile Ile Thr Thr Thr Lys Ile Ile Lys Gly Asn Glu
20525 20530 20535

Tyr Ile Phe Arg Val Arg Ala Val Asn Lys Tyr Gly Ile Gly Glu
20540 20545 20550

Pro Leu Glu Ser Asp Ser Val Val Ala Lys Asn Ala Phe Val Thr
20555 20560 20565

Pro Gly Pro Pro Gly Ile Pro Glu Val Thr Lys Ile Thr Lys Asn
20570 20575 20580

Ser Met Thr Val Val Trp Ser Arg Pro Ile Ala Asp Gly Gly Ser
20585 20590 20595

Asp Ile Ser Gly Tyr Phe Leu Glu Lys Arg Asp Lys Lys Ser Leu
20600 20605 20610

Gly Trp Phe Lys Val Leu Lys Glu Thr Ile Arg Asp Thr Arg Gln
20615 20620 20625

Lys Val Thr Gly Leu Thr Glu Asn Ser Asp Tyr Gln Tyr Arg Val
20630 20635 20640

Cys Ala Val Asn Ala Ala Gly Gln Gly Pro Phe Ser Glu Pro Ser

20645

20650

20655

Glu Phe Tyr Lys Ala Ala Asp Pro Ile Asp Pro Pro Gly Pro Pro
20660 20665 20670

Ala Lys Ile Arg Ile Ala Asp Ser Thr Lys Ser Ser Ile Thr Leu
20675 20680 20685

Gly Trp Ser Lys Pro Val Tyr Asp Gly Gly Ser Ala Val Thr Gly
20690 20695 20700

Tyr Val Val Glu Ile Arg Gln Gly Glu Glu Glu Trp Thr Thr
20705 20710 20715

Val Ser Thr Lys Gly Glu Val Arg Thr Thr Glu Tyr Val Val Ser
20720 20725 20730

Asn Leu Lys Pro Gly Val Asn Tyr Tyr Phe Arg Val Ser Ala Val
20735 20740 20745

Asn Cys Ala Gly Gln Gly Glu Pro Ile Glu Met Asn Glu Pro Val
20750 20755 20760

Gln Ala Lys Asp Ile Leu Glu Ala Pro Glu Ile Asp Leu Asp Val
20765 20770 20775

Ala Leu Arg Thr Ser Val Ile Ala Lys Ala Gly Glu Asp Val Gln
20780 20785 20790

Val Leu Ile Pro Phe Lys Gly Arg Pro Pro Pro Thr Val Thr Trp
20795 20800 20805

Arg Lys Asp Glu Lys Asn Leu Gly Ser Asp Ala Arg Tyr Ser Ile
20810 20815 20820

Glu Asn Thr Asp Ser Ser Ser Leu Leu Thr Ile Pro Gln Val Thr
20825 20830 20835

Arg Asn Asp Thr Gly Lys Tyr Ile Leu Thr Ile Glu Asn Gly Val
20840 20845 20850

Gly Glu Pro Lys Ser Ser Thr Val Ser Val Lys Val Leu Asp Thr
20855 20860 20865

Pro Ala Ala Cys Gln Lys Leu Gln Val Lys His Val Ser Arg Gly
20870 20875 20880

Thr Val Thr Leu Leu Trp Asp Pro Pro Leu Ile Asp Gly Gly Ser
20885 20890 20895

Pro Ile Ile Asn Tyr Val Ile Glu Lys Arg Asp Ala Thr Lys Arg
20900 20905 20910

Thr Trp Ser Val Val Ser His Lys Cys Ser Ser Thr Ser Phe Lys
20915 20920 20925

Leu Ile Asp Leu Ser Glu Lys Thr Pro Phe Phe Phe Arg Val Leu
20930 20935 20940

Ala Glu Asn Glu Ile Gly Ile Gly Glu Pro Cys Glu Thr Thr Glu
20945 20950 20955

Pro Val Lys Ala Ala Glu Val Pro Ala Pro Ile Arg Asp Leu Ser
20960 20965 20970

Met Lys Asp Ser Thr Lys Thr Ser Val Ile Leu Ser Trp Thr Lys
20975 20980 20985

Pro Asp Phe Asp Gly Gly Ser Val Ile Thr Glu Tyr Val Val Glu
20990 20995 21000

Arg Lys Gly Lys Gly Glu Gln Thr Trp Ser His Ala Gly Ile Ser
21005 21010 21015

Lys Thr Cys Glu Ile Glu Val Ser Gln Leu Lys Glu Gln Ser Val
21020 21025 21030

Leu Glu Phe Arg Val Phe Ala Lys Asn Glu Lys Gly Leu Ser Asp
21035 21040 21045

Pro Val Thr Ile Gly Pro Ile Thr Val Lys Glu Leu Ile Ile Thr
21050 21055 21060

Pro Glu Val Asp Leu Ser Asp Ile Pro Gly Ala Gln Val Thr Val
21065 21070 21075

Arg Ile Gly His Asn Val His Leu Glu Leu Pro Tyr Lys Gly Lys
21080 21085 21090

Pro Lys Pro Ser Ile Ser Trp Leu Lys Asp Gly Leu Pro Leu Lys
21095 21100 21105

Glu Ser Glu Phe Val Arg Phe Ser Lys Thr Glu Asn Lys Ile Thr
21110 21115 21120

Leu Ser Ile Lys Asn Ala Lys Lys Glu His Gly Gly Lys Tyr Thr
21125 21130 21135

Val Ile Leu Asp Asn Ala Val Cys Arg Ile Ala Val Pro Ile Thr
21140 21145 21150

Val Ile Thr Leu Gly Pro Pro Ser Lys Pro Lys Gly Pro Ile Arg
21155 21160 21165

Phe Asp Glu Ile Lys Ala Asp Ser Val Ile Leu Ser Trp Asp Val
21170 21175 21180

Pro Glu Asp Asn Gly Gly Glu Ile Thr Cys Tyr Ser Ile Glu
21185 21190 21195

Lys Arg Glu Thr Ser Gln Thr Asn Trp Lys Met Val Cys Ser Ser
21200 21205 21210

Val Ala Arg Thr Thr Phe Lys Val Pro Asn Leu Val Lys Asp Ala
21215 21220 21225

Glu Tyr Gln Phe Arg Val Arg Ala Glu Asn Arg Tyr Gly Val Ser
21230 21235 21240

Gln Pro Leu Val Ser Ser Ile Ile Val Ala Lys His Gln Phe Arg
21245 21250 21255

Ile Pro Gly Pro Pro Gly Lys Pro Val Ile Tyr Asn Val Thr Ser
21260 21265 21270

Asp Gly Met Ser Leu Thr Trp Asp Ala Pro Val Tyr Asp Gly Gly
21275 21280 21285

Ser Glu Val Thr Gly Phe His Val Glu Lys Lys Glu Arg Asn Ser
21290 21295 21300

Ile Leu Trp Gln Lys Val Asn Thr Ser Pro Ile Ser Gly Arg Glu

21305

21310

21315

Tyr Arg Ala Thr Gly Leu Val Glu Gly Leu Asp Tyr Gln Phe Arg
21320 21325 21330

Val Tyr Ala Glu Asn Ser Ala Gly Leu Ser Ser Pro Ser Asp Pro
21335 21340 21345

Ser Lys Phe Thr Leu Ala Val Ser Pro Val Asp Pro Pro Gly Thr
21350 21355 21360

Pro Asp Tyr Ile Asp Val Thr Arg Glu Thr Ile Thr Leu Lys Trp
21365 21370 21375

Asn Pro Pro Leu Arg Asp Gly Gly Ser Lys Ile Val Gly Tyr Ser
21380 21385 21390

Ile Glu Lys Arg Gln Gly Asn Glu Arg Trp Val Arg Cys Asn Phe
21395 21400 21405

Thr Asp Val Ser Glu Cys Gln Tyr Thr Val Thr Gly Leu Ser Pro
21410 21415 21420

Gly Asp Arg Tyr Glu Phe Arg Ile Ile Ala Arg Asn Ala Val Gly
21425 21430 21435

Thr Ile Ser Pro Pro Ser Gln Ser Ser Gly Ile Ile Met Thr Arg
21440 21445 21450

Asp Glu Asn Val Pro Pro Ile Val Glu Phe Gly Pro Glu Tyr Phe
21455 21460 21465

Asp Gly Leu Ile Ile Lys Ser Gly Glu Ser Leu Arg Ile Lys Ala
21470 21475 21480

Leu Val Gln Gly Arg Pro Val Pro Arg Val Thr Trp Phe Lys Asp
21485 21490 21495

Gly Val Glu Ile Glu Lys Arg Met Asn Met Glu Ile Thr Asn Val
21500 21505 21510

Leu Gly Ser Thr Ser Leu Phe Val Arg Asp Ala Thr Arg Asp His
21515 21520 21525

Arg Gly Val Tyr Thr Val Glu Ala Lys Asn Ala Ser Gly Ser Ala
21530 21535 21540

Lys Ala Glu Ile Lys Val Lys Val Gln Asp Thr Pro Gly Lys Val
21545 21550 21555

Val Gly Pro Ile Arg Phe Thr Asn Ile Thr Gly Glu Lys Met Thr
21560 21565 21570

Leu Trp Trp Asp Ala Pro Leu Asn Asp Gly Cys Ala Pro Ile Thr
21575 21580 21585

His Tyr Ile Ile Glu Lys Arg Glu Thr Ser Arg Leu Ala Trp Ala
21590 21595 21600

Leu Ile Glu Asp Lys Cys Glu Ala Gln Ser Tyr Thr Ala Ile Lys
21605 21610 21615

Leu Ile Asn Gly Asn Glu Tyr Gln Phe Arg Val Ser Ala Val Asn
21620 21625 21630

Lys Phe Gly Val Gly Arg Pro Leu Asp Ser Asp Pro Val Val Ala
21635 21640 21645

Gln Ile Gln Tyr Thr Val Pro Asp Ala Pro Gly Ile Pro Glu Pro
21650 21655 21660

Ser Asn Ile Thr Gly Asn Ser Ile Thr Leu Thr Trp Ala Arg Pro
21665 21670 21675

Glu Ser Asp Gly Gly Ser Glu Ile Gln Gln Tyr Ile Leu Glu Arg
21680 21685 21690

Arg Glu Lys Lys Ser Thr Arg Trp Val Lys Val Ile Ser Lys Arg
21695 21700 21705

Pro Ile Ser Glu Thr Arg Phe Lys Val Thr Gly Leu Thr Glu Gly
21710 21715 21720

Asn Glu Tyr Glu Phe His Val Met Ala Glu Asn Ala Ala Gly Val
21725 21730 21735

Gly Pro Ala Ser Gly Ile Ser Arg Leu Ile Lys Cys Arg Glu Pro
21740 21745 21750

Val	Asn	Pro	Pro	Gly	Pro	Pro	Thr	Val	Val	Lys	Val	Thr	Asp	Thr
21755						21760					21765			
Ser	Lys	Thr	Thr	Val	Ser	Leu	Glu	Trp	Ser	Lys	Pro	Val	Phe	Asp
21770						21775					21780			
Gly	Gly	Met	Glu	Ile	Ile	Gly	Tyr	Ile	Ile	Glu	Met	Cys	Lys	Thr
21785						21790					21795			
Asp	Leu	Gly	Asp	Trp	His	Lys	Val	Asn	Ala	Glu	Ala	Cys	Val	Lys
21800						21805					21810			
Thr	Arg	Tyr	Thr	Val	Thr	Asp	Leu	Gln	Ala	Gly	Glu	Glu	Tyr	Lys
21815						21820					21825			
Phe	Arg	Val	Ser	Ala	Ile	Asn	Gly	Ala	Gly	Lys	Gly	Asp	Ser	Cys
21830						21835					21840			
Glu	Val	Thr	Gly	Thr	Ile	Lys	Ala	Val	Asp	Arg	Leu	Thr	Ala	Pro
21845						21850					21855			
Glu	Leu	Asp	Ile	Asp	Ala	Asn	Phe	Lys	Gln	Thr	His	Val	Val	Arg
21860						21865					21870			
Ala	Gly	Ala	Ser	Ile	Arg	Leu	Phe	Ile	Ala	Tyr	Gln	Gly	Arg	Pro
21875						21880					21885			
Thr	Pro	Thr	Ala	Val	Trp	Ser	Lys	Pro	Asp	Ser	Asn	Leu	Ser	Leu
21890						21895					21900			
Arg	Ala	Asp	Ile	His	Thr	Thr	Asp	Ser	Phe	Ser	Thr	Leu	Thr	Val
21905						21910					21915			
Glu	Asn	Cys	Asn	Arg	Asn	Asp	Ala	Gly	Lys	Tyr	Thr	Leu	Thr	Val
21920						21925					21930			
Glu	Asn	Asn	Ser	Gly	Ser	Lys	Ser	Ile	Thr	Phe	Thr	Val	Lys	Val
21935						21940					21945			
Leu	Asp	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Ile	Thr	Phe	Lys	Asp	Val
21950						21955					21960			
Thr	Arg	Gly	Ser	Ala	Thr	Leu	Met	Trp	Asp	Ala	Pro	Leu	Leu	Asp

21965

21970

21975

Gly Gly Ala Arg Ile His His Tyr Val Val Glu Lys Arg Glu Ala
21980 21985 21990

Ser Arg Arg Ser Trp Gln Val Ile Ser Glu Lys Cys Thr Arg Gln
21995 22000 22005

Ile Phe Lys Val Asn Asp Leu Ala Glu Gly Val Pro Tyr Tyr Phe
22010 22015 22020

Arg Val Ser Ala Val Asn Glu Tyr Gly Val Gly Glu Pro Tyr Glu
22025 22030 22035

Met Pro Glu Pro Ile Val Ala Thr Glu Gln Pro Ala Pro Pro Arg
22040 22045 22050

Arg Leu Asp Val Val Asp Thr Ser Lys Ser Ser Ala Val Leu Ala
22055 22060 22065

Trp Leu Lys Pro Asp His Asp Gly Gly Ser Arg Ile Thr Gly Tyr
22070 22075 22080

Leu Leu Glu Met Arg Gln Lys Gly Ser Asp Leu Trp Val Glu Ala
22085 22090 22095

Gly His Thr Lys Gln Leu Thr Phe Thr Val Glu Arg Leu Val Glu
22100 22105 22110

Lys Thr Glu Tyr Glu Phe Arg Val Lys Ala Lys Asn Asp Ala Gly
22115 22120 22125

Tyr Ser Glu Pro Arg Glu Ala Phe Ser Ser Val Ile Ile Lys Glu
22130 22135 22140

Pro Gln Ile Glu Pro Thr Ala Asp Leu Thr Gly Ile Thr Asn Gln
22145 22150 22155

Leu Ile Thr Cys Lys Ala Gly Ser Pro Phe Thr Ile Asp Val Pro
22160 22165 22170

Ile Ser Gly Arg Pro Ala Pro Lys Val Thr Trp Lys Leu Glu Glu
22175 22180 22185

Met Arg Leu Lys Glu Thr Asp Arg Val Ser Ile Thr Thr Thr Lys
22190 22195 22200

Asp Arg Thr Thr Leu Thr Val Lys Asp Ser Met Arg Gly Asp Ser
22205 22210 22215

Gly Arg Tyr Phe Leu Thr Leu Glu Asn Thr Ala Gly Val Lys Thr
22220 22225 22230

Phe Ser Val Thr Val Val Val Ile Gly Arg Pro Gly Pro Val Thr
22235 22240 22245

Gly Pro Ile Glu Val Ser Ser Val Ser Ala Glu Ser Cys Val Leu
22250 22255 22260

Ser Trp Gly Glu Pro Lys Asp Gly Gly Gly Thr Glu Ile Thr Asn
22265 22270 22275

Tyr Ile Val Glu Lys Arg Glu Ser Gly Thr Thr Ala Trp Gln Leu
22280 22285 22290

Val Asn Ser Ser Val Lys Arg Thr Gln Ile Lys Val Thr His Leu
22295 22300 22305

Thr Lys Tyr Met Glu Tyr Ser Phe Arg Val Ser Ser Glu Asn Arg
22310 22315 22320

Phe Gly Val Ser Lys Pro Leu Glu Ser Ala Pro Ile Ile Ala Glu
22325 22330 22335

His Pro Phe Val Pro Pro Ser Ala Pro Thr Arg Pro Glu Val Tyr
22340 22345 22350

His Val Ser Ala Asn Ala Met Ser Ile Arg Trp Glu Glu Pro Tyr
22355 22360 22365

His Asp Gly Gly Ser Lys Ile Ile Gly Tyr Trp Val Glu Lys Lys
22370 22375 22380

Glu Arg Asn Thr Ile Leu Trp Val Lys Glu Asn Lys Val Pro Cys
22385 22390 22395

Leu Glu Cys Asn Tyr Lys Val Thr Gly Leu Val Glu Gly Leu Glu
22400 22405 22410

Tyr	Gln	Phe	Arg	Thr	Tyr	Ala	Leu	Asn	Ala	Ala	Gly	Val	Ser	Lys
22415						22420					22425			
Ala	Ser	Glu	Ala	Ser	Arg	Pro	Ile	Met	Ala	Gln	Asn	Pro	Val	Asp
22430						22435					22440			
Ala	Pro	Gly	Arg	Pro	Glu	Val	Thr	Asp	Val	Thr	Arg	Ser	Thr	Val
22445						22450					22455			
Ser	Leu	Ile	Trp	Ser	Ala	Pro	Ala	Tyr	Asp	Gly	Gly	Ser	Lys	Val
22460						22465					22470			
Val	Gly	Tyr	Ile	Ile	Glu	Arg	Lys	Pro	Val	Ser	Glu	Val	Gly	Asp
22475						22480					22485			
Gly	Arg	Trp	Leu	Lys	Cys	Asn	Tyr	Thr	Ile	Val	Ser	Asp	Asn	Phe
22490						22495					22500			
Phe	Thr	Val	Thr	Ala	Leu	Ser	Glu	Gly	Asp	Thr	Tyr	Glu	Phe	Arg
22505						22510					22515			
Val	Leu	Ala	Lys	Asn	Ala	Ala	Gly	Val	Ile	Ser	Lys	Gly	Ser	Glu
22520						22525					22530			
Ser	Thr	Gly	Pro	Val	Thr	Cys	Arg	Asp	Glu	Tyr	Ala	Pro	Pro	Lys
22535						22540					22545			
Ala	Glu	Leu	Asp	Ala	Arg	Leu	His	Gly	Asp	Leu	Val	Thr	Ile	Arg
22550						22555					22560			
Ala	Gly	Ser	Asp	Leu	Val	Leu	Asp	Ala	Ala	Val	Gly	Gly	Lys	Pro
22565						22570					22575			
Glu	Pro	Lys	Ile	Ile	Trp	Thr	Lys	Gly	Asp	Lys	Glu	Leu	Asp	Leu
22580						22585					22590			
Cys	Glu	Lys	Val	Ser	Leu	Gln	Tyr	Thr	Gly	Lys	Arg	Ala	Thr	Ala
22595						22600					22605			
Val	Ile	Lys	Phe	Cys	Asp	Arg	Ser	Asp	Ser	Gly	Lys	Tyr	Thr	Leu
22610						22615					22620			
Thr	Val	Lys	Asn	Ala	Ser	Gly	Thr	Lys	Ala	Val	Ser	Val	Met	Val

22625

22630

22635

Lys Val Leu Asp Ser Pro Gly Pro Cys Gly Lys Leu Thr Val Ser
22640 22645 22650

Arg Val Thr Gln Glu Lys Cys Thr Leu Ala Trp Ser Leu Pro Gln
22655 22660 22665

Glu Asp Gly Gly Ala Glu Ile Thr His Tyr Ile Val Glu Arg Arg
22670 22675 22680

Glu Thr Ser Arg Leu Asn Trp Val Ile Val Glu Gly Glu Cys Pro
22685 22690 22695

Thr Leu Ser Tyr Val Val Thr Arg Leu Ile Lys Asn Asn Glu Tyr
22700 22705 22710

Ile Phe Arg Val Arg Ala Val Asn Lys Tyr Gly Pro Gly Val Pro
22715 22720 22725

Val Glu Ser Glu Pro Ile Val Ala Arg Asn Ser Phe Thr Ile Pro
22730 22735 22740

Ser Pro Pro Gly Ile Pro Glu Glu Val Gly Thr Gly Lys Glu His
22745 22750 22755

Ile Ile Ile Gln Trp Thr Lys Pro Glu Ser Asp Gly Gly Asn Glu
22760 22765 22770

Ile Ser Asn Tyr Leu Val Asp Lys Arg Glu Lys Glu Ser Leu Arg
22775 22780 22785

Trp Thr Arg Val Asn Lys Asp Tyr Val Val Tyr Asp Thr Arg Leu
22790 22795 22800

Lys Val Thr Ser Leu Met Glu Gly Cys Asp Tyr Gln Phe Arg Val
22805 22810 22815

Thr Ala Val Asn Ala Ala Gly Asn Ser Glu Pro Ser Glu Arg Ser
22820 22825 22830

Asn Phe Ile Ser Cys Arg Glu Pro Ser Tyr Thr Pro Gly Pro Pro
22835 22840 22845

Ser Ala Pro Arg Val Val Asp Thr Thr Lys His Ser Ile Ser Leu
 22850 22855 22860

Ala Trp Thr Lys Pro Met Tyr Asp Gly Gly Thr Asp Ile Val Gly
 22865 22870 22875

Tyr Val Leu Glu Met Gln Glu Lys Asp Thr Asp Gln Trp Tyr Arg
 22880 22885 22890

Val His Thr Asn Ala Thr Ile Arg Asn Thr Glu Phe Thr Val Pro
 22895 22900 22905

Asp Leu Lys Met Gly Gln Lys Tyr Ser Phe Arg Val Ala Ala Val
 22910 22915 22920

Asn Val Lys Gly Met Ser Glu Tyr Ser Glu Ser Ile Ala Glu Ile
 22925 22930 22935

Glu Pro Val Glu Arg Ile Glu Ile Pro Asp Leu Glu Leu Ala Asp
 22940 22945 22950

Asp Leu Lys Lys Thr Val Thr Ile Arg Ala Gly Ala Ser Leu Arg
 22955 22960 22965

Leu Met Val Ser Val Ser Gly Arg Pro Pro Pro Val Ile Thr Trp
 22970 22975 22980

Ser Lys Gln Gly Ile Asp Leu Ala Ser Arg Ala Ile Ile Asp Thr
 22985 22990 22995

Thr Glu Ser Tyr Ser Leu Leu Ile Val Asp Lys Val Asn Arg Tyr
 23000 23005 23010

Asp Ala Gly Lys Tyr Thr Ile Glu Ala Glu Asn Gln Ser Gly Lys
 23015 23020 23025

Lys Ser Ala Thr Val Leu Val Lys Val Tyr Asp Thr Pro Gly Pro
 23030 23035 23040

Cys Pro Ser Val Lys Val Lys Glu Val Ser Arg Asp Ser Val Thr
 23045 23050 23055

Ile Thr Trp Glu Ile Pro Thr Ile Asp Gly Gly Ala Pro Ile Asn
 23060 23065 23070

Asn Tyr Ile Val Glu Lys Arg Glu Ala Ala Met Arg Ala Phe Lys
23075 23080 23085

Thr Val Thr Thr Lys Cys Ser Lys Thr Leu Tyr Arg Ile Ser Gly
23090 23095 23100

Leu Val Glu Gly Thr Met His Tyr Phe Arg Val Leu Pro Glu Asn
23105 23110 23115

Ile Tyr Gly Ile Gly Glu Pro Cys Glu Thr Ser Asp Ala Val Leu
23120 23125 23130

Val Ser Glu Val Pro Leu Val Pro Ala Lys Leu Glu Val Val Asp
23135 23140 23145

Val Thr Lys Ser Thr Val Thr Leu Ala Trp Glu Lys Pro Leu Tyr
23150 23155 23160

Asp Gly Gly Ser Arg Leu Thr Gly Tyr Val Leu Glu Ala Cys Lys
23165 23170 23175

Ala Gly Thr Glu Arg Trp Met Lys Val Val Thr Leu Lys Pro Thr
23180 23185 23190

Val Leu Glu His Thr Val Thr Ser Leu Asn Glu Gly Glu Gln Tyr
23195 23200 23205

Leu Phe Arg Ile Arg Ala Gln Asn Glu Lys Gly Val Ser Glu Pro
23210 23215 23220

Arg Glu Thr Val Thr Ala Val Thr Val Gln Asp Leu Arg Val Leu
23225 23230 23235

Pro Thr Ile Asp Leu Ser Thr Met Pro Gln Lys Thr Ile His Val
23240 23245 23250

Pro Ala Gly Arg Pro Val Glu Leu Val Ile Pro Ile Ala Gly Arg
23255 23260 23265

Pro Pro Pro Ala Ala Ser Trp Phe Phe Ala Gly Ser Lys Leu Arg
23270 23275 23280

Glu Ser Glu Arg Val Thr Val Glu Thr His Thr Lys Val Ala Lys

23285

23290

23295

Leu Thr Ile Arg Glu Thr Thr Ile Arg Asp Thr Gly Glu Tyr Thr
23300 23305 23310

Leu Glu Leu Lys Asn Val Thr Gly Thr Thr Ser Glu Thr Ile Lys
23315 23320 23325

Val Ile Ile Leu Asp Lys Pro Gly Pro Pro Thr Gly Pro Ile Lys
23330 23335 23340

Ile Asp Glu Ile Asp Ala Thr Ser Ile Thr Ile Ser Trp Glu Pro
23345 23350 23355

Pro Glu Leu Asp Gly Gly Ala Pro Leu Ser Gly Tyr Val Val Glu
23360 23365 23370

Gln Arg Asp Ala His Arg Pro Gly Trp Leu Pro Val Ser Glu Ser
23375 23380 23385

Val Thr Arg Ser Thr Phe Lys Phe Thr Arg Leu Thr Glu Gly Asn
23390 23395 23400

Glu Tyr Val Phe Arg Val Ala Ala Thr Asn Arg Phe Gly Ile Gly
23405 23410 23415

Ser Tyr Leu Gln Ser Glu Val Ile Glu Cys Arg Ser Ser Ile Arg
23420 23425 23430

Ile Pro Gly Pro Pro Glu Thr Leu Gln Ile Phe Asp Val Ser Arg
23435 23440 23445

Asp Gly Met Thr Leu Thr Trp Tyr Pro Pro Glu Asp Asp Gly Gly
23450 23455 23460

Ser Gln Val Thr Gly Tyr Ile Val Glu Arg Lys Glu Val Arg Ala
23465 23470 23475

Asp Arg Trp Val Arg Val Asn Lys Val Pro Val Thr Met Thr Arg
23480 23485 23490

Tyr Arg Ser Thr Gly Leu Thr Glu Gly Leu Glu Tyr Glu His Arg
23495 23500 23505

Val Thr Ala Ile Asn Ala Arg Gly Ser Gly Lys Pro Ser Arg Pro
23510 23515 23520

Ser Lys Pro Ile Val Ala Met Asp Pro Ile Ala Pro Pro Gly Lys
23525 23530 23535

Pro Gln Asn Pro Arg Val Thr Asp Thr Thr Arg Thr Ser Val Ser
23540 23545 23550

Leu Ala Trp Ser Val Pro Glu Asp Glu Gly Gly Ser Lys Val Thr
23555 23560 23565

Gly Tyr Leu Ile Glu Met Gln Lys Val Asp Gln His Glu Trp Thr
23570 23575 23580

Lys Cys Asn Thr Thr Pro Thr Lys Ile Arg Glu Tyr Thr Leu Thr
23585 23590 23595

His Leu Pro Gln Gly Ala Glu Tyr Arg Phe Arg Val Leu Ala Cys
23600 23605 23610

Asn Ala Gly Gly Pro Gly Glu Pro Ala Glu Val Pro Gly Thr Val
23615 23620 23625

Lys Val Thr Glu Met Leu Glu Tyr Pro Asp Tyr Glu Leu Asp Glu
23630 23635 23640

Arg Tyr Gln Glu Gly Ile Phe Val Arg Gln Gly Gly Val Ile Arg
23645 23650 23655

Leu Thr Ile Pro Ile Lys Gly Lys Pro Phe Pro Ile Cys Lys Trp
23660 23665 23670

Thr Lys Glu Gly Gln Asp Ile Ser Lys Arg Ala Met Ile Ala Thr
23675 23680 23685

Ser Glu Thr His Thr Glu Leu Val Ile Lys Glu Ala Asp Arg Gly
23690 23695 23700

Asp Ser Gly Thr Tyr Asp Leu Val Leu Glu Asn Lys Cys Gly Lys
23705 23710 23715

Lys Ala Val Tyr Ile Lys Val Arg Val Ile Gly Ser Pro Asn Ser
23720 23725 23730

Pro Glu Gly Pro Leu Glu Tyr Asp Asp Ile Gln Val Arg Ser Val
23735 23740 23745

Arg Val Ser Trp Arg Pro Pro Ala Asp Asp Gly Gly Ala Asp Ile
23750 23755 23760

Leu Gly Tyr Ile Leu Glu Arg Arg Glu Val Pro Lys Ala Ala Trp
23765 23770 23775

Tyr Thr Ile Asp Ser Arg Val Arg Gly Thr Ser Leu Val Val Lys
23780 23785 23790

Gly Leu Lys Glu Asn Val Glu Tyr His Phe Arg Val Ser Ala Glu
23795 23800 23805

Asn Gln Phe Gly Ile Ser Lys Pro Leu Lys Ser Glu Glu Pro Val
23810 23815 23820

Thr Pro Lys Thr Pro Leu Asn Pro Pro Glu Pro Pro Ser Asn Pro
23825 23830 23835

Pro Glu Val Leu Asp Val Thr Lys Ser Ser Val Ser Leu Ser Trp
23840 23845 23850

Ser Arg Pro Lys Asp Asp Gly Gly Ser Arg Val Thr Gly Tyr Tyr
23855 23860 23865

Ile Glu Arg Lys Glu Thr Ser Thr Asp Lys Trp Val Arg His Asn
23870 23875 23880

Lys Thr Gln Ile Thr Thr Thr Met Tyr Thr Val Thr Gly Leu Val
23885 23890 23895

Pro Asp Ala Glu Tyr Gln Phe Arg Ile Ile Ala Gln Asn Asp Val
23900 23905 23910

Gly Leu Ser Glu Thr Ser Pro Ala Ser Glu Pro Val Val Cys Lys
23915 23920 23925

Asp Pro Phe Asp Lys Pro Ser Gln Pro Gly Glu Leu Glu Ile Leu
23930 23935 23940

Ser Ile Ser Lys Asp Ser Val Thr Leu Gln Trp Glu Lys Pro Glu

23945

23950

23955

Cys Asp Gly Gly Lys Glu Ile Leu Gly Tyr Trp Val Glu Tyr Arg
23960 23965 23970

Gln Ser Gly Asp Ser Ala Trp Lys Lys Ser Asn Lys Glu Arg Ile
23975 23980 23985

Lys Asp Lys Gln Phe Thr Ile Gly Gly Leu Leu Glu Ala Thr Glu
23990 23995 24000

Tyr Glu Phe Arg Val Phe Ala Glu Asn Glu Thr Gly Leu Ser Arg
24005 24010 24015

Pro Arg Arg Thr Ala Met Ser Ile Lys Thr Lys Leu Thr Ser Gly
24020 24025 24030

Glu Ala Pro Gly Ile Arg Lys Glu Met Lys Asp Val Thr Thr Lys
24035 24040 24045

Leu Gly Glu Ala Ala Gln Leu Ser Cys Gln Ile Val Gly Arg Pro
24050 24055 24060

Leu Pro Asp Ile Lys Trp Tyr Arg Phe Gly Lys Glu Leu Ile Gln
24065 24070 24075

Ser Arg Lys Tyr Lys Met Ser Ser Asp Gly Arg Thr His Thr Leu
24080 24085 24090

Thr Val Met Thr Glu Glu Gln Glu Asp Glu Gly Val Tyr Thr Cys
24095 24100 24105

Ile Ala Thr Asn Glu Val Gly Glu Val Glu Thr Ser Ser Lys Leu
24110 24115 24120

Leu Leu Gln Ala Thr Pro Gln Phe His Pro Gly Tyr Pro Leu Lys
24125 24130 24135

Glu Lys Tyr Tyr Gly Ala Val Gly Ser Thr Leu Arg Leu His Val
24140 24145 24150

Met Tyr Ile Gly Arg Pro Val Pro Ala Met Thr Trp Phe His Gly
24155 24160 24165

Gln Lys Leu Leu Gln Asn Ser Glu Asn Ile Thr Ile Glu Asn Thr
24170 24175 24180

Glu His Tyr Thr His Leu Val Met Lys Asn Val Gln Arg Lys Thr
24185 24190 24195

His Ala Gly Lys Tyr Lys Val Gln Leu Ser Asn Val Phe Gly Thr
24200 24205 24210

Val Asp Ala Ile Leu Asp Val Glu Ile Gln Asp Lys Pro Asp Lys
24215 24220 24225

Pro Thr Gly Pro Ile Val Ile Glu Ala Leu Leu Lys Asn Ser Ala
24230 24235 24240

Val Ile Ser Trp Lys Pro Pro Ala Asp Asp Gly Gly Ser Trp Ile
24245 24250 24255

Thr Asn Tyr Val Val Glu Lys Cys Glu Ala Lys Glu Gly Ala Glu
24260 24265 24270

Trp Gln Leu Val Ser Ser Ala Ile Ser Val Thr Thr Cys Arg Ile
24275 24280 24285

Val Asn Leu Thr Glu Asn Ala Gly Tyr Tyr Phe Arg Val Ser Ala
24290 24295 24300

Gln Asn Thr Phe Gly Ile Ser Asp Pro Leu Glu Val Ser Ser Val
24305 24310 24315

Val Ile Ile Lys Ser Pro Phe Glu Lys Pro Gly Ala Pro Gly Lys
24320 24325 24330

Pro Thr Ile Thr Ala Val Thr Lys Asp Ser Cys Val Val Ala Trp
24335 24340 24345

Lys Pro Pro Ala Ser Asp Gly Gly Ala Lys Ile Arg Asn Tyr Tyr
24350 24355 24360

Leu Glu Lys Arg Glu Lys Lys Gln Asn Lys Trp Ile Ser Val Thr
24365 24370 24375

Thr Glu Glu Ile Arg Glu Thr Val Phe Ser Val Lys Asn Leu Ile
24380 24385 24390

Glu Gly Leu Glu Tyr Glu Phe Arg Val Lys Cys Glu Asn Leu Gly
24395 24400 24405

Gly Glu Ser Glu Trp Ser Glu Ile Ser Glu Pro Ile Thr Pro Lys
24410 24415 24420

Ser Asp Val Pro Ile Gln Ala Pro His Phe Lys Glu Glu Leu Arg
24425 24430 24435

Asn Leu Asn Val Arg Tyr Gln Ser Asn Ala Thr Leu Val Cys Lys
24440 24445 24450

Val Thr Gly His Pro Lys Pro Ile Val Lys Trp Tyr Arg Gln Gly
24455 24460 24465

Lys Glu Ile Ile Ala Asp Gly Leu Lys Tyr Arg Ile Gln Glu Phe
24470 24475 24480

Lys Gly Gly Tyr His Gln Leu Ile Ile Ala Ser Val Thr Asp Asp
24485 24490 24495

Asp Ala Thr Val Tyr Gln Val Arg Ala Thr Asn Gln Gly Gly Ser
24500 24505 24510

Val Ser Gly Thr Ala Ser Leu Glu Val Glu Val Pro Ala Lys Ile
24515 24520 24525

His Leu Pro Lys Thr Leu Glu Gly Met Gly Ala Val His Ala Leu
24530 24535 24540

Arg Gly Glu Val Val Ser Ile Lys Ile Pro Phe Ser Gly Lys Pro
24545 24550 24555

Asp Pro Val Ile Thr Trp Gln Lys Gly Gln Asp Leu Ile Asp Asn
24560 24565 24570

Asn Gly His Tyr Gln Val Ile Val Thr Arg Ser Phe Thr Ser Leu
24575 24580 24585

Val Phe Pro Asn Gly Val Glu Arg Lys Asp Ala Gly Phe Tyr Val
24590 24595 24600

Val Cys Ala Lys Asn Arg Phe Gly Ile Asp Gln Lys Thr Val Glu

24605

24610

24615

Leu Asp Val Ala Asp Val Pro Asp Pro Pro Arg Gly Val Lys Val
24620 24625 24630

Ser Asp Ala Ser Arg Asp Ser Val Asn Leu Thr Trp Thr Glu Pro
24635 24640 24645

Ala Ser Asp Gly Gly Ser Lys Ile Thr Asn Tyr Ile Val Glu Lys
24650 24655 24660

Cys Ala Thr Thr Ala Glu Arg Trp Leu Arg Val Gly Gln Ala Arg
24665 24670 24675

Glu Thr Arg Tyr Thr Val Ile Asn Leu Phe Gly Lys Thr Ser Tyr
24680 24685 24690

Gln Phe Arg Val Ile Ala Glu Asn Lys Phe Gly Leu Ser Lys Pro
24695 24700 24705

Ser Glu Pro Ser Glu Pro Thr Ile Thr Lys Glu Asp Lys Thr Arg
24710 24715 24720

Ala Met Asn Tyr Asp Glu Glu Val Asp Glu Thr Arg Glu Val Ser
24725 24730 24735

Met Thr Lys Ala Ser His Ser Ser Thr Lys Glu Leu Tyr Glu Lys
24740 24745 24750

Tyr Met Ile Ala Glu Asp Leu Gly Arg Gly Glu Phe Gly Ile Val
24755 24760 24765

His Arg Cys Val Glu Thr Ser Ser Lys Lys Thr Tyr Met Ala Lys
24770 24775 24780

Phe Val Lys Val Lys Gly Thr Asp Gln Val Leu Val Lys Lys Glu
24785 24790 24795

Ile Ser Ile Leu Asn Ile Ala Arg His Arg Asn Ile Leu His Leu
24800 24805 24810

His Glu Ser Phe Glu Ser Met Glu Glu Leu Val Met Ile Phe Glu
24815 24820 24825

Phe Ile Ser Gly Leu Asp Ile Phe Glu Arg Ile Asn Thr Ser Ala
24830 24835 24840

Phe Glu Leu Asn Glu Arg Glu Ile Val Ser Tyr Val His Gln Val
24845 24850 24855

Cys Glu Ala Leu Gln Phe Leu His Ser His Asn Ile Gly His Phe
24860 24865 24870

Asp Ile Arg Pro Glu Asn Ile Ile Tyr Gln Thr Arg Arg Ser Ser
24875 24880 24885

Thr Ile Lys Ile Ile Glu Phe Gly Gln Ala Arg Gln Leu Lys Pro
24890 24895 24900

Gly Asp Asn Phe Arg Leu Leu Phe Thr Ala Pro Glu Tyr Tyr Ala
24905 24910 24915

Pro Glu Val His Gln His Asp Val Val Ser Thr Ala Thr Asp Met
24920 24925 24930

Trp Ser Leu Gly Thr Leu Val Tyr Val Leu Leu Ser Gly Ile Asn
24935 24940 24945

Pro Phe Leu Ala Glu Thr Asn Gln Gln Ile Ile Glu Asn Ile Met
24950 24955 24960

Asn Ala Glu Tyr Thr Phe Asp Glu Glu Ala Phe Lys Glu Ile Ser
24965 24970 24975

Ile Glu Ala Met Asp Phe Val Asp Arg Leu Leu Val Lys Glu Arg
24980 24985 24990

Lys Ser Arg Met Thr Ala Ser Glu Ala Leu Gln His Pro Trp Leu
24995 25000 25005

Lys Gln Lys Ile Glu Arg Val Ser Thr Lys Val Ile Arg Thr Leu
25010 25015 25020

Lys His Arg Arg Tyr Tyr His Thr Leu Ile Lys Lys Asp Leu Asn
25025 25030 25035

Met Val Val Ser Ala Ala Arg Ile Ser Cys Gly Gly Ala Ile Arg
25040 25045 25050

Ser Gln Lys Gly Val Ser Val Ala Lys Val Lys Val Ala Ser Ile
25055 25060 25065

Glu Ile Gly Pro Val Ser Gly Gln Ile Met His Ala Val Gly Glu
25070 25075 25080

Glu Gly Gly His Val Lys Tyr Val Cys Lys Ile Glu Asn Tyr Asp
25085 25090 25095

Gln Ser Thr Gln Val Thr Trp Tyr Phe Gly Val Arg Gln Leu Glu
25100 25105 25110

Asn Ser Glu Lys Tyr Glu Ile Thr Tyr Glu Asp Gly Val Ala Ile
25115 25120 25125

Leu Tyr Val Lys Asp Ile Thr Lys Leu Asp Asp Gly Thr Tyr Arg
25130 25135 25140

Cys Lys Val Val Asn Asp Tyr Gly Glu Asp Ser Ser Tyr Ala Glu
25145 25150 25155

Leu Phe Val Lys Gly Val Arg Glu Val Tyr Asp Tyr Tyr Cys Arg
25160 25165 25170

Arg Thr Met Lys Lys Ile Lys Arg Arg Thr Asp Thr Met Arg Leu
25175 25180 25185

Leu Glu Arg Pro Pro Glu Phe Thr Leu Pro Leu Tyr Asn Lys Thr
25190 25195 25200

Ala Tyr Val Gly Glu Asn Val Arg Phe Gly Val Thr Ile Thr Val
25205 25210 25215

His Pro Glu Pro His Val Thr Trp Tyr Lys Ser Gly Gln Lys Ile
25220 25225 25230

Lys Pro Gly Asp Asn Asp Lys Lys Tyr Thr Phe Glu Ser Asp Lys
25235 25240 25245

Gly Leu Tyr Gln Leu Thr Ile Asn Ser Val Thr Thr Asp Asp Asp
25250 25255 25260

Ala Glu Tyr Thr Val Val Ala Arg Asn Lys Tyr Gly Glu Asp Ser

25265

25270

25275

Cys Lys Ala Lys Leu Thr Val Thr Leu His Pro Pro Pro Thr Asp
25280 25285 25290

Ser Thr Leu Arg Pro Met Phe Lys Arg Leu Leu Ala Asn Ala Glu
25295 25300 25305

Cys Gln Glu Gly Gln Ser Val Cys Phe Glu Ile Arg Val Ser Gly
25310 25315 25320

Ile Pro Pro Pro Thr Leu Lys Trp Glu Lys Asp Gly Gln Pro Leu
25325 25330 25335

Ser Leu Gly Pro Asn Ile Glu Ile Ile His Glu Gly Leu Asp Tyr
25340 25345 25350

Tyr Ala Leu His Ile Arg Asp Thr Leu Pro Glu Asp Thr Gly Tyr
25355 25360 25365

Tyr Arg Val Thr Ala Thr Asn Thr Ala Gly Ser Thr Ser Cys Gln
25370 25375 25380

Ala His Leu Gln Val Glu Arg Leu Arg Tyr Lys Lys Gln Glu Phe
25385 25390 25395

Lys Ser Lys Glu Glu His Glu Arg His Val Gln Lys Gln Ile Asp
25400 25405 25410

Lys Thr Leu Arg Met Ala Glu Ile Leu Ser Gly Thr Glu Ser Val
25415 25420 25425

Pro Leu Thr Gln Val Ala Lys Glu Ala Leu Arg Glu Ala Ala Val
25430 25435 25440

Leu Tyr Lys Pro Ala Val Ser Thr Lys Thr Val Lys Gly Glu Phe
25445 25450 25455

Arg Leu Glu Ile Glu Glu Lys Lys Glu Glu Arg Lys Leu Arg Met
25460 25465 25470

Pro Tyr Asp Val Pro Glu Pro Arg Lys Tyr Lys Gln Thr Thr Ile
25475 25480 25485

Glu	Glu	Asp	Gln	Arg	Ile	Lys	Gln	Phe	Val	Pro	Met	Ser	Asp	Met
25490						25495					25500			
Lys	Trp	Tyr	Lys	Lys	Ile	Arg	Asp	Gln	Tyr	Glu	Met	Pro	Gly	Lys
25505						25510					25515			
Leu	Asp	Arg	Val	Val	Gln	Lys	Arg	Pro	Lys	Arg	Ile	Arg	Leu	Ser
25520						25525					25530			
Arg	Trp	Glu	Gln	Phe	Tyr	Val	Met	Pro	Leu	Pro	Arg	Ile	Thr	Asp
25535						25540					25545			
Gln	Tyr	Arg	Pro	Lys	Trp	Arg	Ile	Pro	Lys	Leu	Ser	Gln	Asp	Asp
25550						25555					25560			
Leu	Glu	Ile	Val	Arg	Pro	Ala	Arg	Arg	Arg	Thr	Pro	Ser	Pro	Asp
25565						25570					25575			
Tyr	Asp	Phe	Tyr	Tyr	Arg	Pro	Arg	Arg	Arg	Ser	Leu	Gly	Asp	Ile
25580						25585					25590			
Ser	Asp	Glu	Glu	Leu	Leu	Leu	Pro	Ile	Asp	Asp	Tyr	Leu	Ala	Met
25595						25600					25605			
Lys	Arg	Thr	Glu	Glu	Glu	Arg	Leu	Arg	Leu	Glu	Glu	Glu	Leu	Glu
25610						25615					25620			
Leu	Gly	Phe	Ser	Ala	Ser	Pro	Pro	Ser	Arg	Ser	Pro	Pro	His	Phe
25625						25630					25635			
Glu	Leu	Ser	Ser	Leu	Arg	Tyr	Ser	Ser	Pro	Gln	Ala	His	Val	Lys
25640						25645					25650			
Val	Glu	Glu	Thr	Arg	Lys	Asn	Phe	Arg	Tyr	Ser	Thr	Tyr	His	Ile
25655						25660					25665			
Pro	Thr	Lys	Ala	Glu	Ala	Ser	Thr	Ser	Tyr	Ala	Glu	Leu	Arg	Glu
25670						25675					25680			
Arg	His	Ala	Gln	Ala	Ala	Tyr	Arg	Gln	Pro	Lys	Gln	Arg	Gln	Arg
25685						25690					25695			
Ile	Met	Ala	Glu	Arg	Glu	Asp	Glu	Glu	Leu	Leu	Arg	Pro	Val	Thr
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Thr Thr Gln His Leu Ser Glu Tyr Lys Ser Glu Leu Asp Phe Met
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Ser Lys Glu Glu Lys Ser Arg Lys Lys Ser Arg Arg Gln Arg Glu
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Val Thr Glu Ile Thr Glu Ile Glu Glu Glu Tyr Glu Ile Ser Lys
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His Ala Gln Arg Glu Ser Ser Ser Ser Ala Ser Arg Leu Leu Arg
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Arg Arg Arg Ser Leu Ser Pro Thr Tyr Ile Glu Leu Met Arg Pro
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Val Ser Glu Leu Ile Arg Ser Arg Pro Gln Pro Ala Glu Glu Tyr
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Glu Asp Asp Thr Glu Arg Arg Ser Pro Thr Pro Glu Arg Thr Arg
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Pro Arg Ser Pro Ser Pro Val Ser Ser Glu Arg Ser Leu Ser Arg
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Phe Glu Arg Ser Ala Arg Phe Asp Ile Phe Ser Arg Tyr Glu Ser
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Glu Val Leu Ser Gln Gln Pro Phe Thr Leu Asp His Ala Pro Arg
25865 25870 25875

Ile Thr Leu Arg Met Arg Ser His Arg Val Pro Cys Gly Gln Asn
25880 25885 25890

Thr Arg Phe Ile Leu Asn Val Gln Ser Lys Pro Thr Ala Glu Val
25895 25900 25905

Lys Trp Tyr His Asn Gly Val Glu Leu Gln Glu Ser Ser Lys Ile
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His Tyr Thr Asn Thr Ser Gly Val Leu Thr Leu Glu Ile Leu Asp

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Cys His Thr Asp Asp Ser Gly	Thr Tyr Arg Ala Val	Cys Thr Asn
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Tyr Lys Gly Glu Ala Ser Asp	Tyr Ala Thr Leu Asp	Val Thr Gly
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Gly Asp Tyr Thr Thr Tyr Ala	Ser Gln Arg Arg Asp	Glu Glu Val
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Pro Arg Ser Val Phe Pro Glu	Leu Thr Arg Thr Glu	Ala Tyr Ala
25985	25990	25995
Val Pro Ser Phe Lys Lys Thr	Ser Glu Met Glu Ala	Ser Ser Ser
26000	26005	26010
Val Arg Glu Val Lys Ser Gln	Met Thr Glu Thr Arg	Glu Ser Leu
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Ser Ser Tyr Glu His Ser Ala	Ser Ala Glu Met Lys	Ser Ala Ala
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Lys Thr Thr Leu Ala Ala Arg	Ile Leu Thr Lys Pro	Arg Ser Met
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Gly Glu Pro Val Pro Thr Val	Thr Trp Leu Arg Lys	Gly Gln Val
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Ser Thr Phe Glu Ile Ser Ser	Val Gln Ala Ser Asp	Glu Gly Asn
26120	26125	26130
Tyr Ser Val Val Val Glu Asn	Ser Glu Gly Lys Gln	Glu Ala Glu
26135	26140	26145

Phe	Thr	Leu	Thr	Ile	Gln	Lys	Ala	Arg	Val	Thr	Glu	Lys	Ala	Val
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Thr	Cys	Val	Val	Glu	Ser	Ser	Val	Leu	Arg	Ala	Lys	Glu	Val	Thr
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Lys	Ser	Asp	Gln	Lys	Thr	Thr	Glu	Ser	Thr	Val	Thr	Arg	Lys	Thr
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Thr	Gly	Leu	Gln	Asp	Thr	Thr	Val	Ser	Ser	Asp	Ser	Val	Ala	Lys
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Ile Lys Gln Ala Ser His Arg Asp Glu Gly Ile Leu Thr Cys Ile
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Gly Arg Lys Ile His Ser Gln Glu Gln Gly Arg Phe His Ile Glu
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